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MONTANA

OIL and GAS



THE MONTANA OIL AND GAS

ANNUAL REVIEW

VOLUME THIRTY-TWO

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DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

Oil and Gas Conservation Division

Stan Stephens, Governor



ANNUAL REVIEW FOR THE YEAR 1988

Relating to

OIL AND GAS

Volume 32

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August, 1989

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TABLE OF CONTENTS

Administrator's Report	1
1988 Summary of Year Activities	2
Five Year Summary	3
Summary of Drilling by Counties	4
Crude Oil Production Graph	5
Natural Gas Production	6
Associated Gas Production	9
Refiner's Report	13
Crude Oil Production and Valuation	14
Miscellaneous Inactive Fields.	20
1988 Well Completions	21
Summary of Secondary Recovery Projects	28
Statistical Charts and Graphs	30
Oil and Gas Field Summary	34
Map of Pipelines and Refineries	In Back of Book
Summary of Producing Oil Fields	In Back of Book
Generalized Stratigraphic Correlation Chart	In Back of Book



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Annual Review for the Year 1988 Volume 32 ACTIVITY REVIEW--MONTANA 1988

A total of 322 wells were drilled for oil and gas in 1988, which is 26 wells fewer than last year. Of the 138 wildcat wells drilled, 10 were completed as oil and 11 as gas producers, and 184 development wells included 72 oil and 54 gas completions. Drilling activity continues to adjust to the industry's economic conditions as both wildcat and development locations are being drilled on a more selective basis.

Oil production decreased this year to 23.3 million barrels, as compared to 25.1 million barrels for 1987. Natural gas production at 47.8 billion cubic feet is nearly the same as last year's withdrawals.

A total of 350 companies and individuals produced oil and/or gas in Montana during 1988. The top five oil producers produced 10 million barrels or 43 percent of the state's total. They are Shell Western, Exxon, Amoco, Orynx (Sun Oil), and Conoco. The crude oil produced from 4,803 wells in 1988 is 7 percent less than last year's output. This continued decrease in annual crude production is mainly attributed to the lack of major discoveries to offset natural decline and the shut-in of marginal producers.

Well samples, including core chips, from 11,674 wells are presently on file in the Billings office. To facilitate research and retrieval, a catalog was published listing all well samples available as of July 1, 1986. Newer well samples and core chips from selected wells will continue to be boxed, indexed, and filed on a current basis. Examination of these samples must normally take place on the premises. Full cores taken from Montana are stored at the U.S. Geological Survey Core Library in Arvada, Colorado.

A total of 59 applications for determination to qualify for a maximum lawful price, as prescribed by the Natural Gas Policy Act of 1978 (NGPA), were received and processed during 1988.

The Board of Oil and Gas Conservation issued 60 board orders in 1988. Most of these pertained to drilling and spacing units, pooling of interests, establishing field delineations and field spacing rules, exceptions to spacing rules, and the inclusion of shallower and deeper pay zones into existing field rules.

1988 **SUMMARY OF YEAR ACTIVITIES**

OIL

	BBLS	BBLS OF OIL PER DAY
Oil Produced	23,317,456	63,709
Oil Imported From:		
Canada	24,305,662	
Wyoming	<u>14,907,299</u>	
Total	39,212,961	107,139
Oil Exported	18,800,000	51,366

GAS

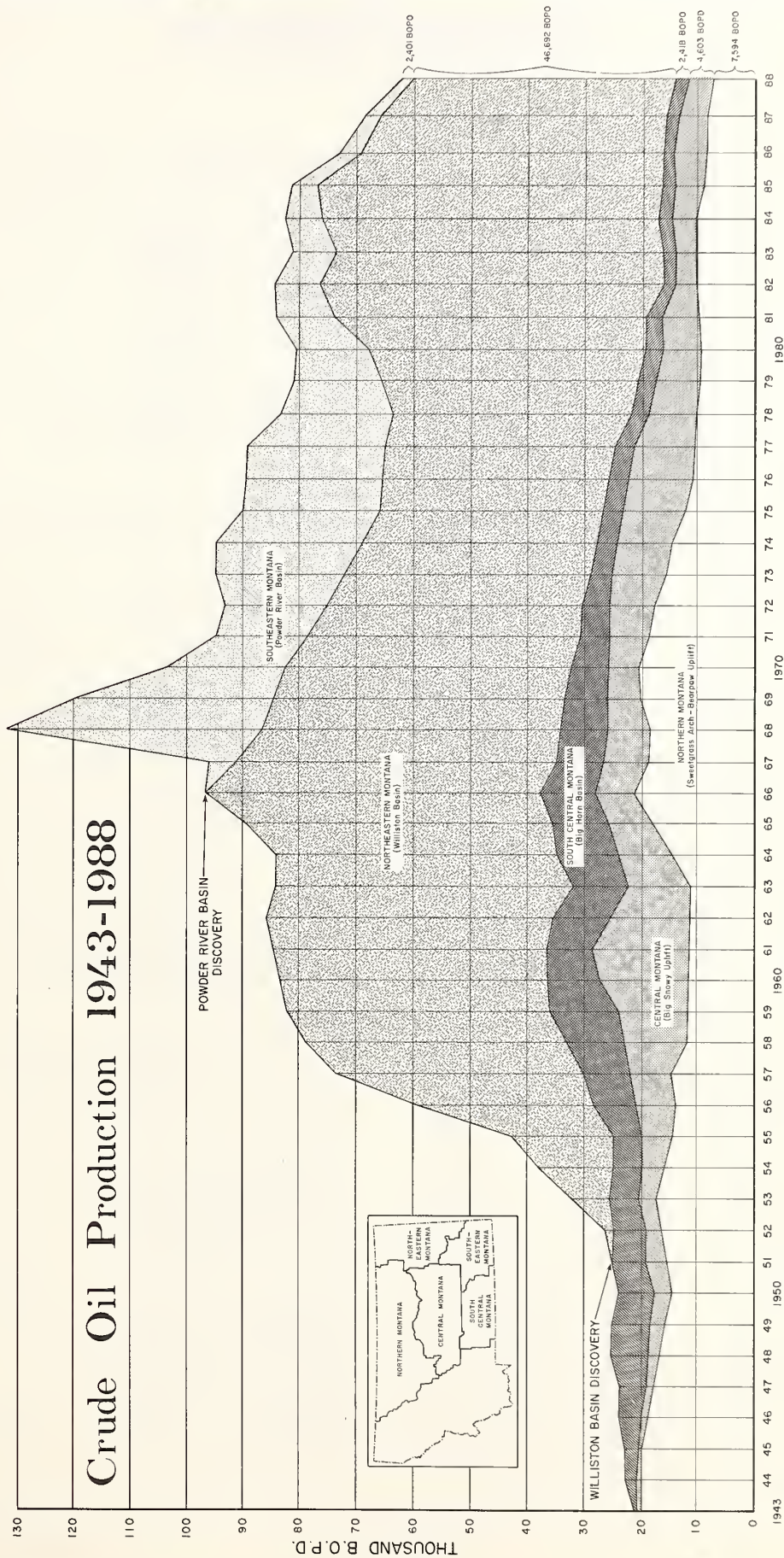
	MCF	MCF/DAY
Gas Withdrawals:		
Natural	42,065,795	
Associated	<u>10,947,759</u>	
Total	53,013,554	144,846
Gas Imported From:		
Canada	7,972,779	
North Dakota	24,627,752	
Wyoming	<u>6,060,384</u>	
Total	38,660,915	105,631
Gas Exported To:		
Canada	38,474	
North Dakota	6,738,341	
South Dakota	7,851,734	
Wyoming	18,885,734	
Midwest	<u>12,526,657</u>	
Total	46,040,940	125,795

FIVE YEAR SUMMARY

	1984	1985	1986	1987	1988
PRODUCTION IN BARRELS					
Northern Montana	3,708,185	3,419,300	3,220,769	3,040,941	2,779,524
South Central	829,090	838,817	722,118	827,229	884,954
Central	1,709,653	1,868,780	2,387,266	1,847,551	1,684,853
Williston Basin	21,449,415	21,979,087	19,520,103	18,319,149	17,089,238
Powder River Basin	2,383,476	1,744,433	1,314,374	1,069,179	878,887
TOTAL	30,079,819	29,850,417	27,164,630	25,104,049	23,317,456
NUMBER OF PRODUCING WELLS					
Northern Montana	2,610	2,803	3,017	2,850	2,821
South Central	144	141	80	130	128
Central	294	417	453	363	355
Williston Basin	1,577	1,540	1,509	1,430	1,434
Powder River Basin	214	216	184	112	103
TOTAL	4,839	5,117	5,243	4,885	4,841
AVERAGE DAILY PRODUCTION/WELL					
Northern Montana	3.9	3.3	2.9	2.9	2.7
South Central	15.8	16.3	24.7	17.4	18.9
Central	15.9	12.3	14.4	13.9	13.0
Williston Basin	37.9	39.1	35.4	35.1	32.6
Powder River Basin	30.4	22.1	19.5	26.2	23.3
STATE AVERAGE	17.0	16.0	14.2	14.1	13.2
DEVELOPMENT WELLS DRILLED					
Oil Wells	327	227	90	86	72
Gas Wells	99	84	81	75	54
Dry Holes	87	90	69	39	46
Service Wells	20	18	4	21	12
TOTAL	533	419	244	221	184
EXPLORATORY WELLS DRILLED					
Oil Wells	33	16	11	7	10
Gas Wells	21	2	10	9	19
Dry Holes	189	192	130	100	100
Temporary Abandoned	25	11	10	11	9
TOTAL	268	221	161	127	138
TOTAL WELLS DRILLED	801	640	405	348	322
TOTAL FOOTAGE DRILLED	3,831,730	3,076,290	1,648,519	1,526,389	1,301,884
AVERAGE FOOTAGE DRILLED	4,783	4,806	4,070	4,386	4,043

SUMMARY OF DRILLING BY COUNTIES—1988

County	Development			Wildcat			Service	Temp. Aband.	Total Wells	Footage Drilled	Average Depth
	Oil	Gas	Dry	Oil	Gas	Dry					
Blaine		8	11		1	7		1	28	53,514	1,911
Carbon	4					2			6	28,802	4,800
Chouteau						1			1	1,752	1,752
Dawson	1								1	11,290	11,290
Fallon	24		1				1	2	28	259,333	9,261
Fergus		1	1			1			3	7,258	2,419
Garfield						3			3	15,972	5,324
Glacier	1						6		7	22,184	3,169
Golden Valley						2	1		3	7,267	2,422
Hill		5	1		7	14			27	40,989	1,518
Liberty		3	1			5			9	22,497	2,499
McCone			1			2			3	17,771	5,923
Musselshell	3		7	2	1	11	1	1	26	113,108	4,350
Petroleum				2		2			2	7,153	3,576
Pondera				2		3			5	14,445	2,889
Powder River						8			8	57,590	7,198
Richland	6			2		2			10	108,533	10,853
Roosevelt	1			1		8			10	83,906	8,390
Rosebud			3			4	1	1	9	46,686	5,187
Sheridan	7		4	2		5			18	162,916	9,050
Stillwater		1			1	6			8	23,323	2,915
Teton	1					7			9	26,175	2,908
Toole	23	36	16		4	3	2	4	88	138,509	1,573
Wheatland						1			1	4,718	4,718
Wibaux						1			1	10,125	10,125
Yellowstone	1				5	2			8	16,068	2,008
TOTALS	72	54	46	10	19	100	12	9	322	1,301,884	4,043



GAS PRODUCTION DATA — 1988

NATURAL GAS

Field	County	Producing Formation	Produced MCF
Alma	Liberty	Bow Island	11,752
Amanda	Toole	Swift, Bow Island, Sunburst	210,919
Arch Apex	Toole	Bow Island, Sunburst, Swift	248,032
Badlands	Hill	Eagle	334,290
Battle Creek	Blaine	Eagle	2,999,261
Bears Den	Liberty	Madison, Bow Island, Swift	28,135
Bell Creek, Southeast	Powder River	Muddy	10,481
Big Coulee	Golden Valley, Stillwater	Lakota, Morrison, Cat Creek	171,601
Big Rock	Glacier	Blackleaf, Bow Island, Madison, Colorado	632,866
Bills Coulee	Teton	Sunburst, Moulton, Kootenai, Dakota	22,776
Black Butte	Hill	Eagle	217,378
Black Coulee	Blaine	Eagle	157,761
Blackfoot	Glacier	Dakota	105,994
Blackjack	Liberty	Second White Specks, Sunburst, Blackleaf, Bow Island	93,709
Blackleaf Canyon	Teton	Sun River	286,400
Border	Toole	Sunburst, Moulton	3,795
Bowdoin and Area	Phillips, Valley	Montana and Colorado Shale	3,655,275
Bowes	Blaine	Eagle	282,948
Bradley	Glacier	Dakota	2,839
Broadview	Golden Valley	Frontier	57,413
Browns Coulee, East	Hill	Eagle, Judith River	74,304
Buffalo Flats	Chouteau	Bow Island	28,536
Bullwacker and Area	Blaine, Chouteau	Eagle, Judith River	905,285
Camp Creek	Chouteau	Eagle	11,911
Canadian Coulee and Area	Hill	Sawtooth	671
Canadian Coulee, North	Hill, Liberty	Sawtooth	4,936
Cedar Creek	Fallon	Eagle	483,197
Chain Lakes	Hill	Eagle	2,623
Charlie Creek, North	Richland	Red River	10,316
Clarks Fork	Carbon	Greybull	27,280
Coal Coulee	Hill	Eagle	2,432
Cut Bank	Glacier, Toole	Cut Bank, Blackleaf, Moulton, Sunburst, Bow Island, Swift, Madison, Dakota	3,344,997
Devon	Toole	Bow Island	298,230
Devon, East	Toole	Bow Island	29,497
Devon, South	Toole	Bow Island	11,255
Dry Creek	Carbon	Frontier, Judith River, Greybull, Virgelle-Eagle	643,814
Dry Creek, Middle	Carbon	Frontier	44,959
Dry Creek (Shallow Gas)	Carbon	Virgelle	31,645
Dry Creek, West	Carbon	Greybull	6,999
Dry Fork	Pondera	Bow Island	39,949
Dunkirk	Toole	Dakota, Bow Island	174,219
Dunkirk, North	Toole	Bow Island, Dakota, Kootenai, Swift	197,952
Eagle Springs	Toole	Bow Island, Sunburst, Swift	27,502
Ethridge Area	Toole	Swift	44,117
Ethridge, North	Toole	Swift	5,622
Fitzpatrick Lake	Toole	Bow Island	122,804
Flat Coulee	Liberty	Sawtooth, Bow Island, Dakota, Swift, Blackleaf	71,666
Fort Conrad	Toole, Pondera	Bow Island	98,553
Fred and George Creek	Toole	Sunburst, Bow Island, Swift-Blackleaf	33,551
Fresno and Area	Hill	Eagle	44,976
Galata	Toole	Bow Island	261,252
Gold Butte	Toole	Bow Island	2,293
Golden Dome	Carbon	Greybull, Frontier	88,553

GAS PRODUCTION DATA—1988

NATURAL GAS (CONTINUED)

Field	County	Producing Formation	Produced MCF
Grandview	Liberty	Bow Island, Sawtooth	35,722
Gypsy Basin	Pondera	Sunburst, Madison, Sawtooth, Swift, Moulton ..	2,924
Hardin	Big Horn	Frontier	9,601
Hardpan and Area	Pondera, Chouteau	Bow Island	111,168
Havre	Hill, Blaine	Eagle	137,034
Haystack Butte	Liberty	Bow Island	19,137
Haystack Butte, West	Liberty	Bow Island	39,807
Highline	Hill	Eagle	11,372
Keith Area	Liberty	Second White Specks, Sawtooth, Bow Island ..	12,848
Keith, East	Liberty	Second White Specks, Sawtooth, Bow Island, Niobrara	557,805
Kevin Area	Toole	Swift, Sunburst	14,798
Kevin, East Nisku	Toole	Nisku	107,285
Kevin, Southwest	Toole	Bow Island, Sunburst, Swift, Dakota, Sunburst ..	288,976
Kevin-Sunburst	Toole	Dakota, Eagle, Madison, Swift, Bow Island, Sunburst, Kootenai	1,081,103
Kevin Sunburst Nisku	Toole	Swift	38,010
Kicking Horse	Toole	Bow Island, Sunburst, Sawtooth	109,115
Kinyon Coulee Area	Toole	Bow Island	21,503
Kinyon Coulee, South	Toole	Bow Island	1,121
Kippen Area, East	Toole	Madison-Swift, Sawtooth	13,946
Lake Basin	Stillwater	Claggett, Eagle-Virgelle, Telegraph, Frontier ...	214,239
Lake Basin, North	Stillwater	Eagle	17,512
Ledger	Pondera	Bow Island, Sawtooth	314,499
Leroy	Blaine	Eagle	618,620
Liscom Creek	Custer	Shannon	107,072
Little Basin	Stillwater	Frontier	79,024
Little Creek Area	Chouteau	Eagle-Virgelle	44,551
Little Rock	Glacier	Bow Island-Blackleaf	56,291
Lohman and Area	Blaine	Eagle	235,676
Loring Unit	Phillips	Phillips-Bowdoin-Carlile-Greenhorn	937,243
Loring, East	Phillips	Phillips-Bowdoin-Carlile-Greenhorn	677,164
Loring, West	Phillips	Phillips-Bowdoin-Carlile-Greenhorn	12,452
Marias River	Toole, Pondera	Bow Island	220,781
Middle Butte	Toole, Liberty	Bow Island, Dakota, Second White Specks	29,118
Miners Coulee	Toole	Sunburst, Bow Island, Sawtooth	226,078
Mount Lily	Liberty	Madison, Swift, Bow Island	14,916
O'Briens Coulee	Liberty	Bow Island, Second White Specks, Blackleaf ..	125,843
Old Shelby	Toole	Bow Island, Sunburst-Swift	645,474
Park City	Stillwater	Virgelle	13,627
Phantom	Toole	Sunburst	30,392
Phantom, West	Toole	Sunburst	51,726
Police Coulee	Toole	Bow Island	33,408
Prairie Dell	Toole	Bow Island-Swift-Dakota-Sunburst	867,608
Prairie Dell, West	Toole	Swift	28,028
Rapelje	Stillwater	Eagle-Virgelle-Claggett	40,693
Rattlesnake Coulee	Toole	Bow Island, Sunburst	18,060
Red Rock Area	Hill	Eagle, Judith River	130,631
Rocky Boy	Hill	Eagle	72,210
Rudyard	Hill	Sawtooth, Eagle	102,360
Sage Creek	Liberty	Blackleaf, Second White Specks, Bow Island ..	145,335
Sandwich	Liberty	Swift	143
Sawtooth Mountain	Blaine	Judith River, Eagle	551,738
Shelby Area	Toole	Sunburst	10,407

GAS PRODUCTION DATA—1988

NATURAL GAS (CONTINUED)

Field	County	Producing Formation	Produced MCF
Sherard and Area	Blaine, Chouteau	Eagle, Judith River	635,199
Snoose Coulee	Liberty	Bow Island	14,514
Soberup Coulee	Pondera	Bow Island	830
Spring Coulee	Hill	Sawtooth	56,438
Strawberry Creek	Toole	Bow Island, Burwash	37,214
Swanson Creek	Phillips, Valley	Phillips-Bowdoin-Greenhorn	486,347
Sweetgrass	Toole	Sunburst	596
Sweetgrass Area	Toole	Sunburst	2,083
Three Mile	Blaine	Eagle	223,194
Tiber and Area	Toole	Bow Island	221,401
Tiger Ridge and Area	Blaine, Hill	Eagle, Judith River	12,934,646
Tiger Ridge, North	Blaine	Eagle	2,124
Timber Creek	Toole	Sunburst	23,494
Trail Creek	Liberty, Toole	Bow Island, Sunburst, Swift	121,062
Utopia	Liberty	Sawtooth, Bow Island, Swift	34,267
Vandalia	Valley	Greenhorn, Bowdoin, Phillips	38,397
West Butte	Toole	Bow Island, Sunburst	13,315
West Butte Shallow Gas	Toole	Bow Island-Dakota	25,707
Whitewater, East	Phillips	Bowdoin-Phillips-Greenhorn	173,906
Whitlash	Liberty	Dakota, Swift, Bow Island, Madison, Swift-Sunburst	360,831
Whitelash, West	Toole	Sunburst, Bow Island, Swift	35,119
Wild Horse	Toole	Second White Specks	230
Williams	Pondera	Bow Island	123,496
Willow Ridge	Toole	Bow Island, Swift, Dakota, Duperow, Sunburst	259,087
Willow Ridge, South	Toole	Sunburst	156,738
Willow Ridge, West	Toole	Bow Island	46,421
Wildcat	Hill	43,424
SUBTOTAL NATURAL GAS			42,065,795

NATURAL GAS IMPORTED MMCF

Canada	7,973
North Dakota	24,628
Wyoming	<u>6,060</u>
	38,661

NATURAL GAS EXPORTED MMCF

Canada	38
North Dakota	6,738
South Dakota	7,852
Wyoming	18,886
Midwest	<u>12,527</u>
	46,041

GAS PRODUCTION DATA — 1988

ASSOCIATED GAS

Field	County	Producing Formation	Produced MCF
Anvil	Roosevelt	Nisku, Ratcliffe, Red River, Winnipegosis	275,397
Bainville	Roosevelt	Red River, Winnipegosis	23,520
Bainville, North	Roosevelt	Interlake, Ratcliffe, Red River, Winnipegosis	107,561
Bainville, West	Roosevelt	Red River, Madison	7,878
Bainville II	Roosevelt	Red River	43,569
Beanblossum	Garfield	Tyler	2,949
Belfry	Carbon	Kootenai	5,005
Bell Creek	Carter, Powder River	Muddy	146
Benrud Area	Roosevelt	Madison	5,537
Benrud, East	Roosevelt	Nisku	13,173
Benrud, Northeast	Roosevelt	Nisku	3,546
Big Muddy Creek	Roosevelt	Mission Canyon, Red River	12,096
Black Diamond	Wibaux	Nisku, Red River	51,615
Bloomfield	Dawson	Dawson Bay, Red River-Interlake	41,582
Blue Mountain	Wibaux	Red River	4,773
Box Canyon	Richland	Red River	8,482
Breed Creek	Rosebud	Tyler	1,703
Brorson	Richland	Madison, Red River	83,328
Brorson, South	Richland	Red River, Madison	40,501
Brush Lake	Sheridan	Red River	37,146
Cabin Creek	Fallon	Madison, Siluro-Ord, Red River	630,004
Canal	Richland	Madison, Red River	47,726
Cannon Ball	Fallon	Red River	4,095
Cattails	Richland	Ratcliffe	18,698
Charlie Creek	Richland	Nisku, Red River	17,254
Charlie Creek, East	Richland	Red River, Duperow	49,548
Charlie Creek, North	Richland	Madison	802
Clear Lake	Sheridan	Madison, Nisku, Red River	166,496
Clear Lake, South	Sheridan	Red River	10,707
Colored Canyon	Sheridan	Red River, Nisku	21,998
Comertown	Sheridan	Nisku, Ratcliffe, Red River	74,371
Comertown, South	Sheridan	Nisku, Red River	13,042
Cottonwood	Richland	Red River	12,105
Crane	Richland	Devonian, Siluro-Ord	225,986
Cupton	Fallon	Red River	38,948
Cut Bank	Pondera, Glacier, Toole	Madison, Moulton	143,070
Dagmar	Sheridan	Red River	21,622
Deer Creek	Dawson	Interlake, Red River	2,160
Diamond Point	Roosevelt	Red River	47,596
Divide	Sheridan	Madison, Red River	102,742
Dooley	Sheridan	Ratcliffe	13,673
Dry Creek	Carbon	Greybull	111,098
Dutch John Coulee	Toole	Sunburst	134,561
Dwyer	Sheridan	Red River, Madison, Nisku	60,491
Eagle	Richland	Madison, Red River, Duperow, Interlake	113,308
Elk Basin	Carbon	Madison, Tensleep	412,559
Elk Basin, Northwest	Carbon	Madison	37,982
Enid, North	Richland	Red River	14,923
Fairview	Richland	Winnipegosis, Madison, Red River	358,483
Fairview, East	Richland	Red River, Stonewall	14,779
Fairview, West	Richland	Madison	7,220
Fertile Prairie	Fallon	Red River	7,521
Fishhook	Sheridan	Red River	17,484
Flat Coulee (Swift SU)	Liberty	Swift	10,522
Flat Lake	Sheridan	Nisku, Madison	71,596
Flat Lake, South	Sheridan	Ratcliffe	3,412
Fort Gilbert	Richland	Madison, Red River, Duperow	73,160
Four Mile Creek	Richland	Red River	841
Four Mile Creek, West	Richland	Red River	6,743

GAS PRODUCTION DATA — 1988

ASSOCIATED GAS (CONTINUED)

Field	County	Producing Formation	Produced MCF
Fox Creek	Richland	Stonewall	1,353
Fox Creek, North	Richland	Madison	189
Frannie	Carbon	Tensleep	28
Fred & George Creek	Toole	Sunburst	646
Frog Coulee	Richland	Red River	2,315
Froid, South	Roosevelt	Red River	5,833
Gas City	Dawson	Madison, Siluro-Ord	5,433
Girard	Richland	Red River	22,406
Glendive	Dawson	Siluro-Ord	22,915
Golden Dome	Carbon	Greybull	46,218
Goose Lake	Sheridan	Ratcliffe, Red River	27,627
Goose Lake, Southeast	Sheridan	Ratcliffe	3,002
Goose Lake, West	Sheridan	Red River	21,771
Gossett	Richland	Stoney Mountain, Red River, Madison	12,540
Gumbo Ridge	Rosebud	Tyler	100
Gunsight	Roosevelt	Madison	824
Hardscrable Creek	Richland	Red River	2,660
Hay Creek	Richland	Interlake, Mission Canyon, Red River	30,270
Hiawatha	Musselshell	Tyler, Stensvad	1,928
High Five	Rosebud	Tyler, Stensvad	7,899
Honker	Sheridan	Red River	4,732
Intake II	Richland	Red River	50,710
Jim Coulee	Musselshell	Tyler	4,812
Jim Coulee, North	Musselshell	Tyler, Stensvad	230
Katy Lake	Sheridan	Red River	14,920
Katy Lake, North	Sheridan	Red River, Madison, Nesson	207,267
Keg Coulee	Musselshell	Tyler	181
Kelley Unit	Musselshell	Tyler	1,724
Kevin-Sunburst	Toole	Madison, Sunburst	179,264
Kevin, East Nisku Oil	Toole	Nisku	23,789
Kincheloe Ranch, West	Rosebud	Tyler	7,916
Laird Creek	Liberty	Swift	609
Lambert	Richland	Red River, Interlake	30,189
Landslide Butte	Glacier	Madison	66,290
Little Beaver	Fallon	Siluro-Ord	30,558
Little Beaver, East	Fallon	Siluro-Ord	21,895
Little Wall Creek	Musselshell	Tyler, Stensvad	18,904
Little Wall Creek, South	Musselshell	Tyler	10,605
Lobo	Sheridan, Roosevelt	Interlake, Red River, Gunton	36,608
Lone Butte	Richland	Red River, Mission Canyon	27,006
Lonetree Creek	Richland	Red River	165,004
Lookout Butte	Fallon	Siluro-Ord, Madison	63,010
Lookout Butte, East	Fallon	Red River, Lodgepole	8,783
Lowell	Sheridan	Red River	3,289
Lustre	Valley	Madison	124,812
McCabe	Roosevelt	Ratcliffe	5,052
McCabe, West	Roosevelt	Red River	4,954
McCoy Creek	Sheridan	Red River	3,456
Medicine Lake	Sheridan	Siluro-Ord, Duperow	207,816
Melstone	Musselshell	Tyler	21,055
Midfork	Valley	Charles C, Nisku	20,438
Missouri Breaks	Richland	Red River	19,352
Mon Dak, West	Richland	Madison, Siluro-Ord	324,031
Mona	Richland	Red River	3,731
Monarch	Fallon	Siluro-Ord	8,748
Mustang	Richland	Red River, Madison	25,956
Neisser Creek	Sheridan	Red River	14,590
Ninemile	Toole	Nisku	3,755
Nohly	Richland	Red River, Nisku, Ratcliffe	332,453
North Fork	Richland	Madison	19,155

GAS PRODUCTION DATA — 1988

ASSOCIATED GAS (CONTINUED)

Field	County	Producing Formation	Produced MCF
Olje	Sheridan	Red River	7,231
Ollie	Fallon	Duperow, Red River	3,330
Otis Creek	Richland	Red River	12,276
Otis Creek, South	Richland	Red River	13,417
Outlook	Sheridan	Duperow, Winniepegosis, Nisku, Interlake	40,571
Outlook, South	Sheridan	Winniepegosis, Bakken	765
Oxbow	Roosevelt	Red River	17,395
Oxbow II	Roosevelt	Red River	12,365
Pelican	Sheridan	Red River	20,381
Pennel	Fallon	Siluro-Ord	600,882
Pine	Fallon, Wibaux, Prairie, Dawson	Red River, Stoney Mountain, Madison, Siluro-Ord	259,014
Pipeline	Sheridan	Red River	863
Poplar, Northwest	Roosevelt	Charles	144,940
Prichard Creek	Toole	Sunburst	3
Pronghorn	Sheridan	Red River, Interlake	16,225
Putnam	Richland	Madison, Red River, Interlake	139,298
Ragged Point	Musselshell	Tyler	2,562
Rainbow	Richland	Red River	10,564
Rattler Butte	Rosebud	Tyler	2,768
Rattlesnake Butte	Petroleum	Amsden, Cat Creek	5,289
Raymond	Sheridan	Mississippian, Red River, Winniepegosis, Nisku, Duperow	349,825
Reagan	Glacier	Madison	383,598
Red Bank	Roosevelt	Red River, Madison	39,135
Red Bank, South	Roosevelt	Red River	13,273
Red Creek Unit	Glacier	Cut Bank, Madison	6,934
Red Fox	Roosevelt	Nisku	38
Red Water, East	Richland	Red River	13,309
Refuge	Sheridan	Red River	13,358
Repeat	Carter	Red River	1,200
Reserve	Sheridan	Red River, Winniepegosis	21,014
Reserve II	Sheridan	Red River, Winniepegosis	30,938
Reserve, South	Sheridan	Red River	7,215
Richey, Southwest	McCone	Interlake	445
Ridgelawn	Richland	Red River, Mississippian, Devonian	1,199,114
RipRap Coulee	Roosevelt	Ratcliffe	10,561
River Bend	Richland	Red River	37,341
Rocky Point	Roosevelt	Red River	45,702
Rosebud	Rosebud	Tyler	940
Royals	Dawson	Dawson Bay	21,039
Rush Mountain	Sheridan	Winniepegosis	6,104
Salt Lake	Sheridan	Red River	10,003
Sand Creek	Dawson	Interlake-Red River	3,990
Saturn	Daniels	Ratcliffe	78
Second Creek	Richland	Red River	36,273
Shotgun Creek	Roosevelt	Ratcliffe	9,493
Sidney	Richland	Madison, Red River	84,420
Sidney, East	Richland	Madison	15,572
Singletree	Roosevelt	Winniepegosis	7,349
Sioux Pass	Richland	Red River, Interlake	96,766
Sioux Pass, Middle	Richland	Red River	55,332
Sioux Pass, North	Richland	Madison, Red River, Nisku	116,435
Sioux Pass, South	Richland	Red River	15,907
Snoose Coulee	Liberty	Bow Island	9,388
South Fork	Richland	Red River	17,549
Spring Lake	Richland	Bakken, Red River	46,213
Spring Lake, South	Richland	Red River	17,283

GAS PRODUCTION DATA— 1988

ASSOCIATED GAS (CONTINUED)

Field	County	Producing Formation	Produced MCF
Spring Lake, West	Richland	Bakken	5,325
Stampede	Richland	Red River, Duperow	22,308
Studhorse	Garfield	Stensvad	423
Sumatra	Rosebud	Tyler	126,569
Sunny Hill, West	Sheridan	Red River	12,954
Three Buttes	Richland	Gunton, Red River, Mission Canyon	24,481
Tinder Box	Musselshell	Tyler	1,013
Tippy Buttes	Musselshell	Tyler	618
Tule Creek	Roosevelt	Nisku, Devonian	17,284
Tule Creek, East	Roosevelt	Nisku	5,899
Two Waters	Richland	Bakken, Red River	12,482
Vaux	Richland	Madison, Interlake, Red River, Stonewall, Dawson Bay	214,622
Wakea	Sheridan	Red River, Interlake, Winnipegosis, Nisku	92,563
Weed Creek	Yellowstone	Amsden	751
Whitlash	Liberty	Swift, Sunburst	77,931
Wills Creek, South	Fallon	Siluro-Ord	3,256
Windmill	Richland	Red River	6,760
Woodrow	Dawson	Charles	4,320
Wrangler	Sheridan	Red River	37,725
Wrangler, North	Sheridan	Red River	4,763
SUBTOTAL ASSOCIATED GAS PRODUCED			10,947,759
SUBTOTAL NATURAL GAS PRODUCED			42,065,795
TOTAL GAS			53,013,554

REFINERS' ANNUAL REPORT--1988

COMPANY	BEGINNING STORAGE	MONTANA OIL	WYOMING OIL	CANADA OIL	REFINED	ENDING STORAGE
CENEX	109,680	2,443,976	2,650,931	7,197,034	12,321,156	80,555
CONTINENTAL OIL CO.	148,392	1,192,371	3,364,186	10,092,950	14,659,639	138,260
EXXON COMPANY	360,270	360,859	8,892,182	5,231,639	16,613,341	231,609
MONTANA REFINING CO.	16,154	610,164	--	1,784,039	2,398,041	12,314
TOTALS	634,496	4,607,370	14,907,299	24,305,662	43,992,177	462,738

PERCENTAGE OF CRUDE OIL RECEIVED

YEAR	MONTANA	CANADA	N. DAKOTA	WYOMING
1984	18.21	33.80	0.13	47.86
1985	18.97	39.06	0.03	41.94
1986	14.13	53.48	0.00	32.39
1987	11.57	56.54	0.00	31.89
1988	10.51	55.47	0.00	34.02

AVERAGE BARRELS PER DAY

YEAR	MONTANA	CANADA	N. DAKOTA	WYOMING	TOTAL
1984	21,369	39,662	151	56,153	117,335
1985	21,382	44,043	28	47,283	112,736
1986	16,492	62,405	--	37,795	116,692
1987	13,680	66,840	--	37,692	118,212
1988	12,589	66,409	--	40,730	119,728

REFINING FIVE-YEAR COMPARISON

1984	1985	1986	1987	1988
42,944,663	41,296,085	42,652,657	42,987,742	43,992,177

BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

STATEMENT OF CRUDE OIL PRODUCTION AND VALUATION—ALL MONTANA FIELDS

YEAR 1988 AND ACCUMULATED TOTAL FROM DISCOVERY DATE

FIELD	COUNTY	PRODUCTION YEAR 1988			CUMULATIVE TO DECEMBER 31, 1988	
		BARRELS	VALUE	AVERAGE PRICE*	BARRELS	VALUE
Anvil	Roosevelt	298,259	4,315,808	14.47	3,226,045	77,294,102
Ash Creek	Big Horn	5,221	77,950	14.93	826,529	3,335,445
Bainville	Roosevelt	48,314	681,227	14.10	539,291	6,654,440
Bainville II	Roosevelt	61,312	873,083	14.24	485,717	10,315,266
Bainville, North	Roosevelt	131,683	1,888,334	14.34	1,317,574	35,179,023
Bainville, West	Roosevelt	7,373	109,047	14.79	200,624	5,633,694
Bannatyne	Teton	9,281	119,261	12.85	350,036	3,487,489
Beanblossom	Garfield	60,506	819,856	13.55	351,075	5,927,833
Bear's Den	Liberty	5,809	84,928	14.62	510,309	3,408,029
Belfry	Carbon	607	9,809	16.16	101,245	503,603
Bell Creek	Powder River	863,249	12,543,008	14.53	129,514,330	1,175,826,335
Benrud	Roosevelt	7,587	111,908	14.75	289,012	2,424,433
Benrud, East	Roosevelt	35,599	509,422	14.31	2,739,872	18,056,155
Benrud, Northeast	Roosevelt	8,334	120,510	14.46	976,299	4,467,777
Berthelote	Toole	1,180	16,414	13.91	91,793	530,457
Big Gully	Musselshell	2,675	36,701	13.72	101,639	1,504,827
Big Gully, North	Musselshell	1,763	24,188	13.72	25,715	559,991
Big Muddy Creek	Roosevelt	25,737	364,951	14.18	1,243,479	20,835,157
Big Wall	Musselshell	73,900	946,659	12.81	7,592,796	35,882,748
Black Diamond	Wibaux	85,050	1,267,245	14.90	455,674	8,603,272
Blackfoot	Glacier	34,085	467,646	13.72	1,470,094	12,236,180
Bloomfield	Dawson	48,329	704,637	14.58	403,030	8,129,438
Blue Mountain	Wibaux	6,032	88,369	14.65	52,077	1,160,914
Border	Toole	8,599	116,602	13.56	1,411,916	5,048,769
Bowes	Blaine	110,503	1,149,231	10.40	9,591,581	41,269,084
Box Canyon	Richland	11,789	175,420	14.88	208,713	6,200,878
Bradley	Glacier	1,988	24,631	12.39	250,343	1,628,689
Brady	Pondera	9,914	136,417	13.76	169,667	3,174,828
Breed Creek	Rosebud	83,354	1,159,454	13.91	1,175,957	23,535,950
Brorson-Madison	Richland	98,517	1,401,897	14.23	1,058,868	16,734,440
Brorson-Red River	Richland	47,874	681,247	14.23	2,221,971	15,140,243
Brorson, South	Richland	36,698	524,781	14.30	1,600,189	17,143,974
Brush Lake	Sheridan	66,299	944,098	14.24	2,526,369	24,099,693
Burget, East	Roosevelt	19,983	266,973	13.36	177,199	4,145,631
Burns Creek	Dawson, Richland	2,171	32,109	14.79	242,984	2,922,229
Cabin Creek	Fallon	1,440,336	19,185,276	13.32	90,161,648	538,323,932
Canadian Coulee	Hill	435	5,672	13.04	1,585	33,245
Canal	Richland	49,297	683,749	13.87	1,034,191	15,816,411
Cannonball	Fallon	3,482	49,201	14.13	60,665	1,889,471
Carlyle	Wibaux	6,881	101,908	14.81	276,226	6,333,710
Cat Creek	Petroleum, Garfield	55,038	819,828	14.90	23,487,920	68,991,885
Cattails	Richland	67,276	902,171	13.41	79,472	1,109,747
Charlie Creek	Richland	18,183	259,108	14.25	680,180	11,887,422
Charlie Creek, East	Richland	53,456	769,232	14.39	411,814	10,586,597
Charlie Creek, North	Richland	1,304	18,491	14.18	42,959	1,170,483
Chelsea Creek	Roosevelt	13,324	192,265	14.43	91,236	1,514,138
Clark's Fork	Carbon	729	9,842	13.50	89,562	405,659
Clear Lake	Sheridan	242,785	3,486,393	14.36	2,427,882	54,495,224
Clear Lake, South	Sheridan	14,926	219,412	14.70	130,346	2,733,113
Colored Canyon	Sheridan	31,444	458,454	14.58	786,924	19,797,762
Comertown	Sheridan	161,749	2,300,071	14.22	1,913,267	51,316,277
Comertown, South	Sheridan	34,165	489,169	14.32	218,958	4,391,796
Conrad, South	Pondera	1,382	22,167	16.04	149,068	975,354

PRODUCTION YEAR 1988					CUMULATIVE TO DECEMBER 31, 1988	
FIELD	COUNTY	BARRELS	VALUE	AVERAGE PRICE*	BARRELS	VALUE
Cottonwood	Richland	14,369	207,345	14.43	148,598	3,154,774
Cow Creek, East	McCone	46,891	587,075	12.52	2,372,641	27,259,107
Crane	Richland	239,972	3,522,789	14.68	1,612,624	41,606,336
Crocker Springs, East	Pondera	110	1,527	13.88	1,558	42,999
Crooked Creek	Yellowstone	860	13,975	16.25	23,989	456,393
Cupton	Fallon	71,124	1,018,877	14.33	2,161,977	28,268,591
Cut Bank	Glacier, Toole	923,438	13,297,507	14.40	161,286,966	703,693,881
Dagmar	Sheridan	16,329	240,200	14.71	534,357	11,871,564
Dagmar, North	Sheridan	3	44	14.58	55,342	1,652,908
Dean Dome	Stillwater	83	1,152	13.88	92,528	1,536,017
Deer Creek	Dawson	3,485	50,428	14.47	2,311,184	6,618,193
Delphia	Musselshell	2,498	35,147	14.07	326,128	1,535,386
Devil's Basin	Musselshell	3,157	39,052	12.37	110,435	1,700,802
Devil's Pocket	Golden Valley	6,093	80,489	13.21	43,370	819,992
Diamond Point	Roosevelt	52,295	734,745	14.05	697,985	15,284,374
Divide	Sheridan	254,346	3,441,302	13.53	1,716,283	42,522,903
Dooley	Sheridan	51,060	605,061	11.85	56,330	684,111
Dry Creek	Carbon	4,724	67,175	14.22	4,143,673	9,958,646
Dry Creek, Middle	Carbon	183	2,602	14.22	946	19,280
Dry Creek, West	Carbon	906	10,845	11.97	6,858	174,488
Dutch John Coulee	Toole	27,616	417,554	15.12	165,975	2,996,201
Dwyer	Sheridan	172,010	2,382,338	13.85	7,893,694	62,031,306
Eagle	Richland	128,964	1,844,185	14.30	1,584,166	37,324,619
East Glacier	Glacier	40	555	13.88	21,083	655,449
Elk Basin	Carbon	614,486	8,289,416	13.49	81,842,456	341,677,472
Elk Basin, Northwest	Carbon	178,845	2,391,158	13.37	1,522,143	9,825,829
Enid, North	Richland	17,042	242,337	14.22	269,475	7,081,939
Fairview	Richland	198,258	2,833,107	14.29	8,213,210	80,120,306
Fairview, East	Richland	17,016	247,242	14.53	358,206	10,500,859
Fairview, West	Richland	11,229	154,286	13.74	180,145	4,589,814
Fertile Prairie	Fallon	19,322	274,952	14.23	666,169	6,955,146
Fishhook	Sheridan	39,071	556,371	14.24	961,350	26,738,945
Flat Coulee	Liberty	105,050	1,534,780	14.61	4,604,143	48,867,539
Flat Lake	Sheridan	283,171	3,508,489	12.39	15,009,012	122,954,588
Flat Lake, East	Sheridan	11,193	151,665	13.55	38,642	671,003
Flat Lake, South	Sheridan	20,282	246,832	12.17	1,168,120	13,006,490
Fort Gilbert	Richland	69,192	985,294	14.24	2,042,121	29,233,939
Four Mile Creek	Richland	1,324	18,827	14.22	347,600	6,514,437
Four Mile Creek, West	Richland	10,553	150,064	14.22	256,548	5,712,058
Fox Creek	Richland	1,825	26,882	14.73	200,464	4,640,130
Fox Creek, North	Richland	1,503	16,142	10.74	70,285	1,784,316
Frannie	Carbon	4,207	54,733	13.01	765,039	2,840,592
Fred & George Creek	Toole	89,050	1,327,259	14.90	12,971,737	81,812,265
Frog Coulee	Richland	11,875	178,006	14.99	167,703	4,674,455
Froid, South	Roosevelt	6,605	95,376	14.44	221,445	2,239,931
Gage	Musselshell	4,572	64,374	14.08	637,551	3,200,628
Gas City	Dawson	82,601	1,187,802	14.38	9,947,663	53,573,562
Girard	Richland	26,615	394,168	14.81	369,974	3,921,248
Glendive	Dawson	199,576	2,913,810	14.60	12,599,026	64,858,223
Golden Dome	Carbon	2,376	36,567	15.39	74,406	1,012,706
Goose Lake	Sheridan	110,077	1,357,249	12.33	8,623,001	62,265,663
Goose Lake, Southeast	Sheridan	5,757	79,907	13.88	5,757	79,907
Goose Lake, West	Sheridan	41,376	605,745	14.64	456,339	11,691,980

FIELD	COUNTY	PRODUCTION YEAR 1988			CUMULATIVE TO DECEMBER 31, 1988	
		BARRELS	VALUE	AVERAGE PRICE*	BARRELS	VALUE
Gossett	Richland	24,131	338,317	14.02	243,403	5,659,675
Graben Coulee	Glacier	64,001	851,853	13.31	2,007,312	23,807,137
Grandview, East	Liberty	3,126	46,108	14.75	42,436	1,021,488
Green Coulee	Sheridan	11,322	163,943	14.48	155,188	4,068,939
Gumbo Ridge	Rosebud	1,476	20,487	13.88	580,657	11,157,829
Gunsight	Roosevelt	21,978	303,956	13.83	190,767	4,446,249
Gypsy Basin	Pondera	15,454	218,829	14.16	461,030	7,307,863
Hardpan	Pondera	55	828	15.06	1,960	48,511
Hardscrabble Creek	Richland	7,303	105,967	14.51	108,523	2,651,119
Hawk Creek	Musselshell	483	7,187	14.88	10,831	128,602
Hay Creek	Richland	33,459	489,171	14.62	1,285,983	10,859,972
Hiawatha	Musselshell	20,395	281,655	13.81	1,536,136	9,572,829
High Five	Rosebud	76,656	1,080,850	14.10	2,179,869	46,098,094
Highview	Pondera	7,367	102,770	13.95	71,510	1,581,947
Honker	Sheridan	4,003	60,525	15.12	97,253	2,782,227
Horse Creek	Liberty	553	7,045	12.74	10,876	210,953
Howard Coulee	Musselshell	8,697	120,888	13.90	133,275	1,984,174
Injun Creek	Rosebud	3,445	51,399	14.92	120,832	2,943,109
Intake II	Richland	35,177	506,730	14.41	671,665	18,567,548
Ivanhoe	Musselshell	5,771	77,851	13.49	4,502,299	14,337,478
Jim Coulee	Musselshell	63,411	872,560	13.76	4,172,272	42,687,079
Katy Lake	Sheridan	15,636	234,227	14.98	121,907	2,110,043
Katy Lake, North	Sheridan	333,343	4,686,803	14.06	3,599,116	96,428,619
Keg Coulee	Musselshell	52,745	752,671	14.27	5,518,205	34,486,029
Keg Coulee, North	Musselshell	1,339	19,563	14.61	438,488	4,827,464
Kelley	Musselshell	16,512	230,673	13.97	994,488	6,014,307
Kevin Nisku Oil, East	Toole	48,304	718,280	14.87	256,490	4,709,646
Kevin-Sunburst	Toole	471,277	6,564,999	13.93	78,021,703	275,474,138
Kincheloe Ranch, West	Rosebud	28,464	395,365	13.89	541,014	14,845,015
Laird Creek	Liberty	5,121	74,818	14.61	576,203	4,675,531
Lambert	Richland	17,830	256,574	14.39	370,981	10,613,015
Lamester Creek	Wibaux	4,219	60,922	14.44	25,658	537,144
Landslide Butte	Glacier	32,167	485,722	15.10	269,856	4,881,692
Leary	Powder River	1,289	18,691	14.50	599,275	8,844,828
Little Beaver	Fallon	388,628	5,032,733	12.95	12,346,420	105,955,711
Little Beaver, East	Fallon	119,449	1,524,169	12.76	5,514,016	37,482,396
Little Phantom	Toole	1,649	20,827	12.63	51,194	1,070,577
Little Wall Creek	Musselshell	160,458	2,219,154	13.83	3,676,379	66,321,138
Lobo	Sheridan, Roosevelt	35,138	505,636	14.39	170,917	2,517,142
Lodge Grass	Big Horn	7,291	82,753	11.35	297,665	1,711,073
Lone Butte	Richland	40,793	575,181	14.10	566,446	9,397,629
Lonetree Creek	Richland	90,391	1,306,150	14.45	3,345,859	40,013,442
Lonetree Creek, West	Richland	3	43	14.45	33,029	1,020,547
Long Creek	Roosevelt	3,030	42,481	14.02	64,727	1,264,706
Long Creek, West	Roosevelt	38,078	550,227	14.45	580,167	12,524,038
Lookout Butte	Fallon	472,485	6,335,686	13.41	23,418,965	162,976,830
Lookout Butte, East	Fallon	63,133	878,811	13.92	150,936	2,283,490
Lowell	Sheridan	12,112	173,928	14.36	216,914	6,276,860
Lustre	Valley	406,446	5,023,197	12.36	3,644,631	77,434,835
Lustre, North	Valley	11,367	141,860	12.48	129,969	2,601,055
Mason Lake	Musselshell	5,506	79,176	14.38	939,747	23,189,470
McCabe	Roosevelt	6,182	91,308	14.77	221,063	5,652,678
McCabe, West	Roosevelt	5,724	87,291	15.25	69,775	1,510,614

FIELD	COUNTY	PRODUCTION YEAR 1988			CUMULATIVE TO DECEMBER 31, 1988	
		BARRELS	VALUE	AVERAGE PRICE*	BARRELS	VALUE
McCoy Creek	Sheridan	5,232	73,928	14.13	37,219	726,484
Meander	Pondera	399	4,604	11.54	4,160	104,175
Medicine Lake	Sheridan	197,752	2,877,292	14.55	2,870,179	81,559,491
Melstone	Musselshell	135,196	1,902,208	14.07	3,490,446	44,732,801
Midfork	Valley	29,617	371,101	12.53	120,991	1,713,441
Mineral Bench	Roosevelt	2,885	25,273	8.76	182,752	1,330,515
Miners Coulee	Toole	556	7,500	13.49	152,708	1,137,078
Missouri Breaks	Richland	17,820	258,212	14.49	283,888	7,579,320
Mon Dak, West	Richland	466,712	6,711,319	14.38	7,975,938	187,238,714
Mona	Richland	2,193	29,079	13.26	70,937	2,021,330
Monarch	Fallon	156,411	2,092,779	13.38	5,483,101	43,397,803
Mosser Dome	Yellowstone	9,450	117,086	12.39	367,615	2,770,909
Musselshell	Musselshell	2,277	30,330	13.32	32,595	445,267
Mustang	Richland	33,328	469,925	14.10	471,326	13,536,051
Neiser Creek	Sheridan	22,343	324,867	14.54	193,700	4,381,253
Ninemile	Toole	6,575	96,258	14.64	31,185	546,369
Nohly	Richland	508,142	7,376,513	14.52	3,606,275	60,414,076
North Fork	Richland	25,172	359,204	14.27	444,012	9,278,796
Olje	Sheridan	19,750	289,140	14.64	129,283	2,269,016
Ollie	Fallon	8,852	128,177	14.48	212,938	6,692,192
Otis Creek	Richland	11,974	170,031	14.20	813,131	10,875,006
Otis Creek, South	Richland	20,090	309,788	15.42	215,132	5,161,060
Outlook	Sheridan	96,538	1,383,390	14.33	8,598,227	60,314,976
Outlook, South	Sheridan	949	15,156	15.97	692,962	2,879,662
Outlook, West	Sheridan	14,252	207,937	14.59	722,368	6,097,741
Oxbow	Roosevelt	23,493	349,811	14.89	349,326	7,556,712
Oxbow II	Roosevelt	6,175	88,611	14.35	40,577	844,865
Palomino	Roosevelt	129,535	1,873,076	14.46	1,322,839	34,289,379
Pelican	Sheridan	17,413	257,364	14.78	183,875	5,162,273
Pennel	Fallon	2,994,126	39,923,844	13.33	72,184,169	862,823,010
Pete Creek	Toole	1,015	13,855	13.65	19,256	405,503
Pine	Dawson, Fallon, Prairie, Wibaux	1,276,793	17,134,562	13.42	105,173,742	621,395,187
Pipeline	Sheridan	2,854	42,211	14.79	16,416	228,939
Pondera	Pondera, Teton	362,842	5,141,471	14.17	24,863,730	149,302,528
Pondera Coulee	Teton	5,164	69,559	13.47	61,514	870,743
Poplar, East	Roosevelt	184,450	2,665,302	14.45	45,139,505	175,499,503
Poplar, Northwest	Roosevelt	203,476	2,952,620	14.51	3,092,270	53,466,768
Prairie Dell	Toole	73	1,013	13.88	577	11,816
Prairie Elk	McCone	5,433	72,096	13.27	91,132	1,410,345
Prichard Creek	Toole	1,899	26,358	13.88	161,256	2,439,352
Pronghorn	Sheridan	20,419	293,625	14.38	376,445	9,566,294
Putnam	Richland	280,737	4,053,842	14.44	4,335,482	91,662,621
Rabbit Hills	Blaine	64,901	811,074	12.50	1,031,121	15,897,206
Ragged Point	Musselshell	19,216	264,028	13.74	3,797,166	31,997,406
Ragged Point, Southwest	Musselshell	82,490	1,281,070	15.53	82,490	1,281,070
Rainbow	Richland	9,176	138,282	15.07	123,623	3,225,919
Rattler Butte	Rosebud	27,726	391,768	14.13	871,373	23,243,591
Rattlesnake Butte	Petroleum	51,042	687,025	13.46	393,383	7,132,504
Raymond	Sheridan	169,605	2,447,400	14.43	4,352,310	77,221,154
Raymond, North	Sheridan	285	4,104	14.40	117,124	3,065,521
Reagan	Glacier	165,162	2,431,185	14.72	8,497,502	80,621,282

FIELD	COUNTY	PRODUCTION YEAR 1988			CUMULATIVE TO DECEMBER 31, 1988	
		BARRELS	VALUE	AVERAGE PRICE*	BARRELS	VALUE
Red Bank	Roosevelt	99,607	1,335,730	13.41	1,573,243	42,907,695
Red Bank, South	Roosevelt	14,115	196,481	13.92	296,406	8,099,641
Red Creek	Glacier	80,653	1,064,620	13.20	6,065,353	32,938,805
Red Fox	Roosevelt	54	750	13.88	375,704	1,597,601
Red Water, East	Richland	13,016	192,246	14.77	193,525	4,659,694
Refuge	Sheridan	13,838	203,557	14.71	168,901	4,829,289
Repeat	Carter	7,416	80,612	10.87	538,748	3,177,069
Reserve	Sheridan	19,354	281,020	14.52	1,610,417	14,339,215
Reserve II	Sheridan	39,760	586,460	14.75	64,530	1,034,054
Reserve, South	Sheridan	8,191	118,524	14.47	33,886	543,836
Richey	Dawson, McCone	7,713	112,157	14.54	1,999,069	7,148,453
Richey, Southwest	McCone	1,065	15,645	14.69	1,902,167	6,387,402
Ridgelawn	Richland	584,409	8,491,463	14.53	4,879,305	120,641,559
RipRap Coulee	Roosevelt	36,527	509,552	13.95	494,397	10,403,953
River Bend	Richland	18,658	265,503	14.23	188,265	4,665,987
Rocky Point	Roosevelt	19,095	278,023	14.56	439,143	11,195,271
Rosebud	Rosebud	8,522	119,308	14.00	447,593	6,963,703
Royals	Dawson	22,859	334,427	14.63	260,328	7,143,478
Rudyard	Hill	1,164	16,156	13.88	16,004	319,826
Runaway	Teton	281	3,900	13.88	4,079	114,355
Rush Mountain	Sheridan	13,321	197,550	14.83	556,447	5,829,935
Salt Lake	Sheridan	58,974	849,815	14.41	540,856	6,529,693
Sand Creek	Dawson	6,057	89,644	14.80	2,348,857	11,808,265
Saturn	Daniels	127	1,763	13.88	23,409	466,876
Second Creek	Richland	35,089	509,141	14.51	1,159,619	18,604,236
Shepherd	Musselshell	934	13,851	14.83	76,938	1,278,675
Shotgun Creek	Roosevelt	37,299	523,678	14.04	337,459	5,855,259
Sidney	Richland	104,572	1,519,431	14.53	2,926,992	58,064,283
Sidney, East	Richland	23,462	343,249	14.63	513,366	15,137,379
Singletree	Roosevelt	8,647	109,298	12.64	280,618	6,115,974
Sioux Pass	Richland	117,539	1,689,035	14.37	3,140,229	51,440,790
Sioux Pass, East	Richland	3,256	44,672	13.72	83,444	1,525,698
Sioux Pass, Middle	Richland	56,924	823,121	14.46	1,318,153	30,257,838
Sioux Pass, North	Richland	157,811	2,283,525	14.47	3,400,048	78,316,749
Sioux Pass, South	Richland	18,858	262,315	13.91	205,072	5,126,222
Snoose Coulee	Liberty	867	10,465	12.07	2,048	40,124
Snyder	Big Horn	3,654	38,184	10.45	459,205	1,793,044
Soap Creek	Big Horn	42,340	451,344	10.66	2,553,833	17,008,187
Soap Creek, East	Big Horn	9,852	103,446	10.50	128,170	2,294,310
South Fork	Richland	36,939	537,093	14.54	900,998	17,817,204
Spring Lake	Richland	32,040	449,521	14.03	909,956	7,308,189
Spring Lake, South	Richland	7,810	109,340	14.00	106,602	2,838,899
Spring Lake, West	Richland	6,326	91,221	14.42	29,678	495,790
Stampede	Richland	15,478	213,751	13.81	237,843	6,315,837
Stensvad	Musselshell, Rosebud	21,983	315,676	14.36	10,131,063	28,215,116
Studhorse	Garfield	9,690	131,009	13.52	166,480	3,675,311
Sumatra	Rosebud	473,086	6,656,320	14.07	42,959,291	308,224,542
Sunnyhill	Sheridan	9,122	129,806	14.23	215,744	5,387,409
Sunnyhill, West	Sheridan	10,325	151,055	14.63	116,827	2,558,234
Target	Roosevelt	24,570	331,449	13.49	558,527	14,589,760
Three Buttes	Richland	27,795	397,746	14.31	330,184	8,717,263
Tinder Box	Musselshell	3,849	53,424	13.88	3,849	53,424

FIELD	COUNTY	PRODUCTION YEAR 1988			CUMULATIVE TO DECEMBER 31, 1988	
		BARRELS	VALUE	AVERAGE PRICE*	BARRELS	VALUE
Tippy Buttes	Musselshell	2,302	31,537	13.70	122,432	3,550,077
Tule Creek	Roosevelt	49,531	741,479	14.97	8,032,093	41,015,596
Tule Creek, East	Roosevelt	4,374	63,817	14.59	2,012,734	7,146,540
Tule Creek, South	Roosevelt	16,834	244,093	14.50	877,495	6,796,068
Two Waters	Richland	15,513	221,681	14.29	161,176	4,348,375
Utopia	Liberty	36,143	503,833	13.94	550,319	11,884,438
Vaux	Richland	306,053	4,358,195	14.24	3,267,869	73,048,409
Volt	Roosevelt	86,441	1,242,157	14.37	2,974,380	25,234,036
Wakea	Sheridan	202,794	3,060,161	15.09	1,693,025	33,886,724
Weed Creek	Yellowstone	1,493	20,693	13.86	602,947	2,569,760
West Butte	Toole	5,360	79,221	14.78	290,959	2,982,035
Whitlash	Liberty, Toole	60,028	878,210	14.63	5,219,890	47,507,041
Whitlash, West	Toole	6,063	87,186	14.38	114,846	1,684,599
Willow Creek, North	Musselshell	22,997	313,909	13.65	345,972	3,431,584
Willow Ridge	Toole	2,214	33,586	15.17	44,404	1,046,634
Wills Creek, South	Fallon	20,514	270,580	13.19	1,072,912	8,744,034
Windmill	Richland	11,489	165,901	14.44	22,689	445,807
Winnett Junction	Musselshell	26,553	336,692	12.68	867,201	15,932,980
Wolf Springs	Yellowstone	16,292	218,802	13.43	4,674,664	14,439,004
Wolf Springs, South	Yellowstone	40,907	553,472	13.53	753,484	14,905,613
Woodrow	Dawson	23,838	354,471	14.87	1,152,709	6,085,462
Wrangler	Sheridan	41,367	590,721	14.28	445,138	11,910,300
Wrangler, North	Sheridan	5,395	72,077	13.36	105,034	3,214,227
Wright Creek	Powder River	6,933	96,923	13.98	281,273	3,294,457
Yates	Wibaux	5,816	80,726	13.88	59,718	1,552,477
Wildcat	Glacier	181	2,512	13.88	48,412	127,430
Wildcat	Pondera	179	2,485	13.88	179	2,485
Wildcat	Teton	251	3,484	13.88	9,575	23,151
Misc. Inactive Fields				14,057,787	94,682,271
TOTALS		23,317,456	323,481,806	13.87	1,274,874,070	9,923,380,088

*Average price calculated from data provided by the Montana Department of Revenue.

MISCELLANEOUS INACTIVE FIELDS AS OF DECEMBER 31, 1988

FIELD	BARRELS	VALUE	FIELD	BARRELS	VALUE
Ace High	3,686	45,448	Malcolm Creek	11,450	353,129
Agawan	79	2,259	Mason Lake, North	17,923	442,087
Alkali Coulee	19,546	635,465	McCabe, East	6,805	205,642
Andes	21,175	646,333	McCabe, South	6,599	208,261
Antelope, North	2,484	85,522	Midby	70,172	2,300,577
Anvil, North	9,446	330,277	Nohly, South	125,082	3,504,089
Autumn	35,546	1,125,986	Otter Creek	28,492	959,881
Bascom	27,830	65,674	Pasture	2,869	90,868
Big Rock	10,764	262,921	Pasture Creek	1,914	62,789
Big Wall, North	7,218	116,302	Phantom	43,585	757,070
Blackfoot, East	810	1,730	Pine, East	19,349	233,378
Blackleaf Canyon	32,365	796,529	Plentywood	22,830	711,421
Blue Hill	162,251	3,110,843	Pole Creek	169,726	277,956
Boulder	156,754	2,530,800	Police Coulee	14	189
Bredette	232,121	2,062,125	Poplar, Southeast	162,546	1,093,017
Bredette, North	488,554	1,160,009	Rattlesnake Coulee	91,024	693,093
Buffalo Flats	603	15,037	Raymond, Northeast	120,687	1,721,719
Buffalo Lake	936	26,493	Red Water	52,023	1,521,507
Burget	6,504	228,647	Redstone	468,178	2,212,903
Burns Creek, South	79,958	2,279,384	Richey, East	10,386	333,467
Butchers Creek	579	20,259	Richey Area, West	11,062	403,670
Bynum	5,971	15,320	Roscoe Dome	15,556	348,482
Cadmus	1,173	3,381	Rough Creek	3,599	10,583
Clark Fork, North	1,024,608	2,895,208	Royals, South	3,082	101,400
Clark Fork, South	80,553	634,021	Scobey	3,916	145,674
Coal Ridge	22,582	795,495	Shotgun Creek, North	89,647	1,564,569
Corner Pocket	14,483	353,729	Smoke Creek	100,305	221,361
Cow Creek	127,813	1,304,283	Snowden	1,938	70,607
Culbertson	175,652	1,134,101	Stampede, North	4,566	136,865
Deadman's Coulee	264,528	8,048,112	Thirty Mile	5,399	105,292
Dugout Coulee	66,740	2,205,099	Two Medicine Creek	10,249	370,951
Dunkirk, North	19	498	Vida	264,988	1,192,054
Epworth	55,142	1,909,226	Viking	160	1,957
Fiddler Creek	2,574	50,224	Wagon Box	32,379	575,263
Flaxville	56,283	1,392,485	Wagon Trail	43,321	1,297,560
Four Buttes	41,067	122,184	Weldon	7,050,531	20,454,760
Gage, Southwest	16,289	37,397	West Fork	6,671	229,773
Gettysburg	304	11,987	Wibaux	23,580	42,945
Glendive, South	68,936	2,009,079	Willow Ridge, South	3,267	102,156
Goose Lake, East	4,522	168,087	Wolf Creek	1,979	2,275
Grandview	9,784	196,936	Woman's Pocket	3,526	7,461
Grebe	890	25,371	Yellowstone	39,405	72,518
Green Coulee, East	62,942	1,741,899	Wildcat, Carbon County	6,368	13,559
Hawk Haven	7,392	236,689	Wildcat, Daniels County	3,508	7,787
Hibbard	215,904	1,978,565	Wildcat, Dawson County	1,489	42,127
Homestead	303	8,726	Wildcat, Fallon County	10,683	29,485
Jack Creek	1,310	3,275	Wildcat, Garfield County	468	13,166
Kicking Horse	1,526	48,566	Wildcat, Hill County	405	8,831
Kippen, East	150	4,815	Wildcat, Liberty County	3,254	19,148
Krug Creek	15,288	538,314	Wildcat, McCone County	12,575	41,467
Lake Basin	473,639	661,111	Wildcat, Musselshell County	925	1,841
Lakeside	487	18,489	Wildcat, Powder River County	27,445	65,594
Lambert, North	36,552	1,221,300	Wildcat, Richland County	339,856	818,099
Lariat	3,599	123,587	Wildcat, Roosevelt County	86,968	259,956
Laurel	1,017	36,458	Wildcat, Sheridan County	52,561	571,834
Ledger	275	7,948	Wildcat, Stillwater County	11,283	13,365
Line Coulee	57,789	138,495	Wildcat, Toole County	36,379	128,683
Lisk Creek	1,939	70,297	Wildcat, Valley County	447	6,034
Lone Rider	5,903	194,397	Wildcat, Wibaux County	8,388	25,416
Lost Creek	1,534	42,905			
Mackay Dome	77,334	1,538,558			
			TOTALS	14,057,787	94,682,271

1988 WELL COMPLETIONS

COUNTY, OPERATOR, LOCATION, WELL NAME	STATUS CODE	API NO.	FIELD	PRODUCING FORMATION	DATE COMPLETED	TOTAL DEPTH	INITIAL	POTENTIAL
							Oil B/D	Gas MCF/D
005 Blaine								
Brown, J. Burns Operating Co., NWNW 29 32N 19E, Vogt 29-32-19	3	22436	Black Coulee		03/23/88	1,359	-	-
Brown, J. Burns Operating Co., NWNW 25 32N 18E, Montana 25-35-18	2	22468	Black Coulee	Eagle	10/13/88	1,365	-	-
Brown, J. Burns Operating Co., NENE 22 32N 19E, Loney 22-32-19	3	22442	Rowes		04/01/88	1,162	-	-
Brown, J. Burns Operating Co., NWNE 34 26N 18E, Robinson 34-26-18	3	22443	Sherard		04/18/88	1,855	-	-
Brown, J. Burns Operating Co., SENE 17 25N 19E, Federal 17-25-19	3	22445	Sherard		04/26/88	1,701	-	-
Brown, J. Burns Operating Co. SENW 18 25N 19E, Federal 18-25-19	3	22446	Sherard		04/22/88	1,678	-	-
Brown, J. Burns Operating Co., SENW 20 25N 19E, Federal 20-25-19	3	22447	Sherard		04/24/88	1,583	-	-
Brown, J. Burns Operating Co., NWSE 15 25N 19E, Federal 15-25-19	3	22450	Sherard		05/13/88	1,776	-	-
Brown, J. Burns Operating Co., NWNW 8 25N 19E, Robinson 8-25-19	2	22444	Sherard Unit	Eagle	04/17/88	1,827	-	-
Brown, J. Burns Operating Co., NWNE 21 25N 19E, Federal 21-25-19A	3	22448	Sherard Unit		05/04/88	1,774	-	-
Brown, J. Burns Operating Co., NESW 10 25N 19E, Federal 10-25-19	3	22452	Sherard Unit		05/20/88	1,767	-	-
Brown, J. Burns Operating Co., SWSW 11 25N 19E, Federal 11-25-19	2	22453	Sherard Unit	Eagle	05/25/88	1,803	-	217
Brown, J. Burns Operating Co., SENW 11 34N 17E, Federal 11-34-17	6	22440	Wildcat		03/10/88	1,518	-	-
Brown, J. Burns Operating Co., NENE 26 32N 18E, Wright 26-32-18	8	22441	Wildcat		03/26/88	1,575	-	-
Brown, J. Burns Operating Co., NENE 34 33N 20E, Warburton 34-33-20	5	22467	Wildcat		09/10/88	1,314	-	-
Brown, J. Burns Operating Co., SWNE 12 35N 17E, Jergensen 7-12	6	22469	Wildcat		12/11/88	1,528	-	-
Brown, J. Burns Operating Co., SESE 27 36N 17E, Fortin 16-27	6	22470	Wildcat		12/09/88	1,492	-	-
LYTM Company, Inc., SWSW 13 32N 18E, Putnam 13-32-18	6	22455	Wildcat		07/29/88	1,250	-	-
LYTM Company, Inc., SENE 20 34N 20E, Grover 1	6	22456	Wildcat		08/08/88	4,200	-	-
McCartney, Clay H., SENE 16 33N 21E, State 8-16-33-21	6	22420	Wildcat		12/25/86	4,197	-	-
Norfolk Energy, Inc., SESW 27 26N 19E, Robinson 27-14	3	22465	Sherard		09/28/88	1,800	-	-
Norfolk Energy, Inc., SWSW 12 30N 17E, Blackwood 12-13	3	22449	Tiger Ridge		07/10/88	1,600	-	-
Norfolk Energy, Inc., SWSW 7 30N 18E, U.S. 7-13	2	22451	Tiger Ridge	Eagle	08/16/88	1,600	-	112
Williams, Robert L., NWSE 22 35N 20E Flynn 1-CS	6	22439	Wildcat		01/25/88	4,276	-	-
Xeno, Inc., SWSW 1 35N 19E, Chouteau 13-1	2	22457	Battle Creek	Eagle	09/27/88	1,902	-	225
Xeno, Inc., NENE 12 35N 19E, Chouteau 1-12	2	22458	Battle Creek	Eagle	09/28/88	1,936	-	123
Xeno, Inc., SWNE 20 36N 19E, Battle 7-20	2	22460	Battle Creek	Eagle	09/26/88	1,807	-	750
Xeno, Inc., SESE 28 36N 19E, Battle 16-28	2	22462	Battle Creek	Eagle	09/27/88	1,869	-	108
009 Carbon								
Amoco Production Company, NWSE 35 9S 23E, Elk Basin #165	1	21225	Elk Basin	Frontier	08/03/88	1,795	22	-
Amoco Production Company, SWSW 35 9S 23E, Elk Basin #163	1	21226	Elk Basin	Frontier	07/25/88	1,715	57	-
Amoco Production Company, NWSW 35 9S 23E, Elk Basin #164	1	21227	Elk Basin	Frontier	08/01/88	1,730	29	-
Amoco Production Company, NWNE 29 9S 23E NW, Madison #12	1	21221	Elk Basin, Northwest	Madison	02/02/88	6,722	81	-
Amoco Production Company, SWSE 19 8S 20E, USA Amoco A #1	6	21201	Wildcat		04/03/88	15,800	-	-
Basso, Lindberg, Westwood, Wol, SWNE 11 4S 24E, Wolf Creek #1	6	21228	Wildcat		06/08/88	1,040	-	-
015 Chouteau								
Montana Power Company, SENW 33 26N 6E, Hartman 6-33	6	21652	Wildcat		05/05/88	1,752	-	-
021 Dawson								
Robinson Resource Development, NENE 11 19N 53E, Nissley 41-11	1	21113	Bloomfield, East	Red River	10/23/86	11,290	54	-
025 Fallon								
Cenergy Exploration Company, NWNW 5 10N 58E, 8N 11-5	1	21440	Cabin Creek	Red River	04/24/88	9,114	45	21
Challenger Minerals Inc., SWSW 3 7N 60E, O'Donnell SWD 14-3	7	21363	Pennel Area			9,170	-	-
Meridian Oil Production Inc., SWSE 36 7N 60E, State 34-36H	1	21470	Lookout Butte East	Red River	09/17/88	10,860	178	89
Meridian Oil Production Inc., SWSE 1 6N 60E MOI 34-1H	1	21471	Lookout Butte East	Red River	10/19/88	10,847	115	65
Meridian Oil, Inc., NWSW 12 6N 60E, Federal 13-12	1	21420	Lookout Butte	East Red River	01/22/88	8,827	37	-
Meridian Oil, Inc., SWNW 1 6N 60E, MOI 12-1	1	21463	Lookout Butte East	Red River	08/26/88	10,586	221	110
Meridian Oil, Inc., NWSW 11 7N 60E, MOI 13-11H	1	21472	Lookout Butte East	Red River	12/31/88	12,133	99	29
Shell Western E&P Inc., NESW 20 10N 58E, Unit 23X-20R	1	21454	Cabin Creek	Red River	05/17/88	9,018	411	181
Shell Western E&P Inc., NWNE 18 10N 58E, Cabin Creek 31-18	1	21461	Cabin Creek	Red River	08/16/88	9,047	174	124
Shell Western E&P Inc., SENE 18 10N 58E, Unit 42-18	1	21462	Cabin Creek	Red River/ Interlake	07/21/88	9,045	240	145
Shell Western E&P Inc., SWSE 12 4N 61E, Unit 34X-12	8	21441	Little Beaver	Red River	02/25/88	8,694	-	-
Shell Western E&P Inc., NWNE 19 4N 62E, Unit 31X-19R	1	21448	Little Beaver	Red River	02/07/88	8,673	78	3
Shell Western E&P Inc., SWNW 18 4N 62E, Unit 12X-18	1	21450	Little Beaver	Red River	04/20/88	8,485	69	1
Shell Western E&P Inc., SWSW 7 4N 62E, Unit 14X-7	1	21451	Little Beaver	Red River	04/08/88	8,500	20	-
Shell Western E&P Inc., NWSE 12 4N 61E, Unit 33X-12	1	21453	Little Beaver	Red River	06/13/88	8,696	9	1
Shell Western E&P Inc., NWSW 10 6N 60E, Unit 13-10	1	21444	Lookout Butte	Red River	01/14/88	8,916	47	1
Shell Western E&P Inc., NWNW 15 6N 60E, Unit 11-15	1	21445	Lookout Butte	Red River/ Stoney Mtn.	02/09/88	8,839	15	2

1988 WELL COMPLETIONS (CONTINUED)

COUNTY, OPERATOR, LOCATION, WELL NAME	STATUS CODE	API NO.	FIELD	PRODUCING FORMATION	DATE COMPLETED	TOTAL DEPTH	INITIAL Oil B/D	POTENTIAL Gas MCF/D
Shell Western E&P Inc., NWSE 10 6N 60E, Unit 33-10	1	21447	Lookout 8utte	Red River	02/24/88	9,015	35	4
Shell Western E&P Inc., NWSE 20 7N 60E, Pennel Unit 33-20B	1	21465	Lookout 8utte	Red River	09/02/88	8,971	40	4
Shell Western E&P Inc., NWNW 33 8N 60E, Unit 11-33C	1	21455	Pennel	Red River	03/14/88	9,203	10	3
Shell Western E&P Inc., SESW 13 8N 59E, Unit 24X-13	1	21456	Pennel	Red River	05/02/88	9,126	67	25
Shell Western E&P Inc., NWNW 15 8N 59E Unit, 11-15	1	21457	Pennel	Red River	04/11/88	8,903	123	13
Shell Western E&P Inc., SWNW 24 8N 59E, Unit 12X-24	1	21458	Pennel	Red River	05/18/88	8,996	59	5
Shell Western E&P Inc., NESE 23 8N 59E, Unit 43X-23	1	21459	Pennel	Red River/ Stoney Mtn.	06/10/88	8,935	101	14
Shell Western E&P Inc., NWNW 23 8N 59E, Unit 11-23	1	21460	Pennel	Red River	07/06/88	8,915	31	3
Shell Western E&P Inc., SWNE 2 7N 59E, Beckman 32-2	3	21464	Pennel	-	08/30/88	9,900	-	-
Shell Western E&P Inc., NWSW 14 8N 59E, Pennel Unit 13-14	8	21466	Pennel	-	08/22/88	8,957	-	-
Shell Western E&P Inc., NWNW 15 8N 59E, Pennel Unit 31X-15	1	21469	Pennel	Red River	09/23/88	8,962	-	-
027 Fergus								
Fuel Resources Develop. Co., NWSW 22 23N 19E, Fed. L-22-23-19-N	2	21222	Leroy	Eagle	11/30/88	1,808	-	120
Fuel Resources Develop. Co., SWNW 22 23N 19E, Fed. E-22-23-19-N	3	21223	Leroy	-	11/14/88	1,800	-	-
Montana Power Company, NENE 4 11N 16E, Allen 1-4	6	21221	Wildcat	-	01/30/88	3,650	-	-
033 Garfield								
Meridian Oil Production Inc., NESW 20 14N 33E, CCC 23-20	6	21134	Wildcat	-	07/31/88	5,672	-	-
Smockey Oil Company, NENW 24 17N 33E, Kennelly 21-24	6	21133	Wildcat	-	03/09/88	5,000	-	-
Tenneco Oil Company, NENE 29 15N 37E, TOC 8N 1-29	6	21135	Wildcat	-	08/23/88	5,300	-	-
035 Glacier								
Bacon, J. R. Drilling, Inc., NWNE 36 32N 6W, SWC8SU 96-7	1	21777	Cut 8ank	Cut 8ank	01/22/88	3,152	1	-
Croft Petroleum Company, SESW 2 37N 6W, Muntzing 4-3	7	21811	Blackfoot	-	12/15/88	3,352	-	-
Union Oil Company of Calif., CNE 13 33N 6W, SCC8SU 50-3	7	21788	Cut 8ank	-	09/17/88	3,195	-	-
Union Oil Company of Calif., NWNW 13 33N 6W, SCC8SU 51-5	7	21789	Cut 8ank	-	09/21/88	3,126	-	-
Union Oil Company of Calif., NWSW 13 33N 6W, SCC8SU 51-6	7	21790	Cut 8ank	-	09/19/88	3,100	-	-
Union Oil Company of Calif., SWSW 13 33N 6W, SCC8SU 51-7	7	21791	Cut 8ank	-	09/17/88	3,109	-	-
Union Oil Company of Calif., NWSE 13 33N 6W, SCC8SU 54-9	7	21792	Cut 8ank	-	09/19/88	3,150	-	-
037 Golden Valley								
Axem Resources Incorporated, SWNE 14 8N 20E, Paintrock 7-14	6	21065	Wildcat	-	08/24/88	2,580	-	-
Balcron Oil Company, SESW 27 6N 22E, J.C. Jensen 24-27	6	21064	Wildcat	-	07/26/88	1,837	-	-
D.A.S. Resource Ventures Inc., SESW 1 10N 21E, Federal SWD 1-14	7	21033	Devils Pocket	Mission Canyon	-	2,850	-	-
041 Hill								
Brown, J. Burns Operating Co., SWSW 3 34N 16E, Schwartz 3-34-16	5	22375	Red Rock	-	10/22/87	1,372	-	-
Brown, J. Burns Operating Co., SESE 7 34N 17E, Davis 7-34-17	6	22378	Wildcat	-	03/09/88	1,452	-	-
Brown, J. Burns Operating Co., SENW 2 34N 16E, Schwartz 2-34-16	5	22379	Red Rock	Eagle	02/26/88	1,455	-	-
Brown, J. Burns Operating Co., SWNW 19 35N 17E, Romain 19-35-17	6	22380	Wildcat	-	03/02/88	1,555	-	-
Brown, J. Burns Operating Co., NWSE 27 35N 16E, Cunningham 27-35-16	6	22381	Wildcat	-	02/26/88	1,450	-	-
Brown, J. Burns Operating Co., SENE 5 34N 17E, Colony 5-34-17	6	22382	Wildcat	-	03/04/88	1,513	-	-
Brown, J. Burns Operating Co., SWNW 3 34N 16E, Schwartz 3-34-16B	5	22392	Red Rock	Judith River	11/27/88	1,255	-	-
Brown, J. Burns Operating Co., SWNW 19 35N 17E, Stone 19-35-17	6	22393	Wildcat	-	11/04/88	1,491	-	-
Brown, J. Burns Operating Co., NWSE 1 34N 16E, Union 1-34-16	5	22394	Red Rock	Eagle	10/22/88	1,493	-	-
Brown, J. Burns Operating Co., SWNE 11 34N 16E, Headrick 11-34-16	6	22395	Wildcat	-	11/24/88	1,539	-	-
Brown, J. Burns Operating Co., SENW 8 34N 16E, Dion 8-34-16	6	22396	Wildcat	-	12/02/88	1,373	-	-
Brown, J. Burns Operating Co., SESW 6 34N 17E, Colony 6-34-17	5	22397	Red Rock	Eagle	10/26/88	1,431	-	-
Brown, J. Burns Operating Co., NESE 31 35N 17E, East 31-35-17	5	22398	Red Rock	Eagle	11/02/88	1,428	-	-
Brown, J. Burns Operating Co., SWSE 6 32N 17E, Dow 6-15	6	22399	Wildcat	-	12/14/88	1,410	-	-
Brown, J. Burns Operating Co., NWSW 32 35N 17E, Greely 32-35-17	6	22400	Wildcat	-	11/22/88	1,464	-	-
Brown, J. Burns Operating Co., S2N2 26 35N 16E, Mitchell 2-26	6	22401	Wildcat	-	12/04/88	1,460	-	-
Brown, J. Burns Operating Co., SENW 12 35N 16E, Hedrick 6-12	5	22402	Red Rock	Eagle	12/06/88	1,497	-	5
Brown, J. Burns Operating Co., SWNW 21 35N 17E, Schnitzmeier 5-21	6	22403	Wildcat	-	12/07/88	1,525	-	-
LYTM Company, Inc., SENW 2 32N 13E, Dees 2-32-13	6	22390	Wildcat	-	08/02/88	1,250	-	-
LYTM Company, Inc., NESW 19 33N 15E, Elenburg 19-33-15	6	22391	Wildcat	-	07/31/88	1,349	-	-
Norfolk Energy, Inc., SESW 7 31N 16E, Vosen 7-14	6	22383	Tiger Ridge	-	06/12/88	1,600	-	-
Norfolk Energy, Inc., NENE 27 30N 15E, Nystrom 27-1	2	22384	Tiger Ridge	Eagle	07/12/88	2,000	-	1,100
Norfolk Energy, Inc., NESE 12 31N 15E, Manuel 12-10	3	22385	Tiger Ridge	-	06/10/88	1,410	-	-
Norfolk Energy, Inc., NENE 9 31N 15E, Felton 19-1	2	22386	Tiger Ridge	Eagle	07/13/88	1,397	-	2,900

1988 WELL COMPLETIONS (CONTINUED)

COUNTY, OPERATOR, LOCATION, WELL NAME	STATUS CODE	API NO.	FIELD	PRODUCING FORMATION	DATE COMPLETED	TOTAL DEPTH	INITIAL	POTENTIAL
							Oil B/D	Gas MCF/D
Norfolk Energy, Inc., SWNE 27 30N 15E, 8oyce 27-15	2	22387	Tiger Ridge	Eagle	07/12/88	2,100	-	2,600
Norfolk Energy, Inc., SENW 23 30N 15E, U.S. 23-6	2	22388	Tiger Ridge	Eagle	07/13/88	2,120	-	6
Norfolk Energy, Inc., SENW 35 32N 17E, Davey 35-6	2	22389	Tiger Ridge	Eagle	08/16/88	1,600	-	3,600
051 Liberty								
8branch, Jerry L., 5WSE 7 35N 4E, Beaudoin No. 15-7	2	21671	Haystack Butte, West	8ow Island	09/26/88	1,770	-	850
8branch, Jerry L., SWSW 8 35N 4E, Norin 8-13	2	21669	Wildcat	8ow Island	08/18/88	2,344	-	552
Great Northern Drilling Co., SESW 24 37N 5E, Corcoran-Grey 24-24	3	21673	Sandwich		11/08/88	2,800	-	-
Great Northern Drilling Co., SWSW 8 33N 6E, Anderson 14-8	6	21667	Wildcat		05/20/88	2,937	-	-
Great Northern Drilling Co., NENE 12 34N 4E, Oswood 41-12	6	21668	Wildcat		05/15/88	2,775	-	-
Great Western Drilling Company, NENW 11 35N 5E, Meissner 21-11	2	21670	Wildcat	Sunburst	12/01/88	2,172	-	473
Montana Power Company, NENE 29 33N 4E, Skinner 1-29	6	21665	Wildcat		05/21/88	2,650	-	-
Montana Power Company, SWSW 31 34N 4E, Smith 13-31	6	21666	Wildcat		05/25/88	2,547	-	-
Montana Power Company, SENW 29 33N 4E, Skinner 6-29	6	21672	Wildcat		11/04/88	2,502	-	-
055 McCone								
8alcron Oil Company, NWNW 28 22N 46E, Federal 31-28	3	21184	Weldon		08/06/88	6,000	-	-
8alcron Oil Company, NWSE 10 22N 45E Lehnens 33-10	6	21183	Wildcat		07/20/88	5,700	-	-
8eartooth Oil & Gas Company, SWNE 20 24N 46E, Federal 20-7	6	21160	Wildcat		10/06/88	6,071	-	-
065 Musselshell								
8alcron Oil Company, NWSE 30 8N 28E, Federal 1-30	8	21738	Wildcat	Dakota	02/19/86	5,890	-	-
8alcron Oil Company, NESW 28 8N 28E, Federal 23-28-8-28	6	21761	Wildcat		09/16/87	6,837	-	-
8eard Oil Company, SWSW 10 11N 31E, Quest 13-10	1	21765	Stensvad	Tyler	01/25/88	5,419	8	-
8eard Oil Company, SENE 8 11N 31E, Quest 8-8	3	21766	Stensvad		07/21/88	5,350	-	-
Conoco Inc., NWSW 29 10N 27E, Conoco Federal 29 #1	6	21782	Wildcat		03/30/88	3,789	-	-
Dynasty Energy & Exploration, NWNW 11 10N 29E, State 11-1	3	21735	Ragged Point		09/30/85	4,600	-	-
Equity Oil Company, SESW 36 11N 27E, State 24-36	6	21789	Wildcat		09/06/88	4,046	-	-
Four J Resources Inc., NESE 26 11N 24E, LEC-Farmer 26-2	3	21552	Devils Basin		01/18/81	1,265	-	-
Four J Resources Inc., NESE 26 11N 24E LEC, Farmer 26-1	3	21553	Devils Basin		12/16/83	1,362	-	-
Holden Energy Corp., NESW 30 10N 27E, Lackey 30-1	6	21787	Wildcat		08/11/88	3,800	-	-
Huckabay, E. Doyle Ltd., NWNW 18 10N 30E, State 1-18	6	21788	Wildcat		08/28/88	4,950	-	-
Nielco, Inc., SWSE 19 10N 27E, 8N 34-19	1	21775	Big Wall	Amsden	03/16/88	3,100	77	-
Quinoco Petroleum, Inc., SWNW 17 10N 29E, Hougen 12-17	3	21783	Kelley		04/24/88	4,478	-	-
Quinoco Petroleum, Inc., SWNE 17 10N 29E, Hougen 32-17	3	21785	Kelley		06/06/88	4,420	-	-
Quinoco Petroleum, Inc., SENW 17 10N 29E, Hougen 22-17	4	21780	Kelley **	Tyler	03/19/88	4,423	175	50
Smokey Oil Company, SWSW 7 5N 24E, 8rown 14-7	6	21781	Wildcat		02/27/88	6,370	-	-
Smoky Hill Exploration Company, SWSE 4 10N 28E, Feeley el al 1-4	6	21771	Wildcat		01/09/88	4,156	-	-
Sun Exploration and Production, NENW 23 11N 30E, Mt. Valley Land #1	6	21773	Wildcat		01/08/88	4,550	-	-
Sun Exploration and Production, NENW 23 11N 30E, 8allard 1	4	21774	Tinder 8ox	Tyler	02/18/88	4,574	45	-
True Oil Company, SESE 22 10N 29E, Mary Swinney #2	7	05119	Melstone			4496	-	-
True Oil Company, NWNW 16 5N 25E, 8alcron State 31-16	6	21779	Wildcat		02/02/88	6,900	-	-
Valero Producing Company, SWNE 9 10N 28E, Goffena 32-9 #3	1	21776	Richey Area	Tyler	01/29/88	4,183	195	-
Valero Producing Company, NWSW 12 10N 27E, Federal 13-12 #1	6	21749	Wildcat		11/26/86	4,100	-	-
Valero Producing Company, SWNE 30 10N 28E, High Butte 32-30 #1	6	21755	Wildcat		12/06/86	4,400	-	-
Valero Producing Company, SWNW 10 10N 28E, Goffena 12-10 #1	3	21772	Willow Creek, North		02/06/88	4,240	-	-
Wyoming Resources Corp., SWNE 9 10N 22E, DAS Federal 7-9	5	21778	Devils Pocket	Amsden	04/08/88	1,410	-	2,170
069 Petroleum								
Dynasty Energy & Exploration, NWSE 1 13N 26E, Reynolds 1-2	6	21141	Wildcat		11/25/86	2,200	-	-
Thermal Exploration, Inc., SESE 24 12N 30E, Collier 44-24	6	21144	Wildcat		08/19/88	4,953	-	-
073 Pondera								
8alcron Oil Company, SWNW 13 27N 3W, J.C. O'Brien 12-13	6	21735	Wildcat		04/13/88	1,996	-	-
8alcron Oil Company, SENE 5 28N 2E, Christenson 42-5	6	21736	Wildcat		04/08/88	2,204	-	-
Campanella, George L., NENE 2 26N 3W, State 1	6	21733	Wildcat		02/26/88	1,968	-	-
Smokey Oil Company, NWNW 20 28N 5W, H & W Ranch 31-20	4	21734	Wildcat	Madison	04/13/88	5,318	14	-
Smokey Oil Company, SWNE 20 28N 5W, H & W Ranch 32-20	4	21739	Wildcat	Madison	09/01/88	2,959	2	-
075 Powder River								
Amoco Production Company, SWSW 35 6S 53E, USA Carpenter #1	6	22206	Wildcat		06/05/88	6,913	-	-
Champlin Petroleum Company, SENW 25 9S 51E, Winged Foot 23-25 #1	6	22209	Wildcat		11/11/88	7,500	-	-
CNG Producing Company, NENW 17 8S 53E, Federal 12-17	6	22205	Wildcat		04/11/88	6,900	-	-

1988 WELL COMPLETIONS (CONTINUED)

COUNTY, OPERATOR, LOCATION, WELL NAME	STATUS CODE	API NO.	FIELD	PRODUCING FORMATION	DATE COMPLETED	TOTAL DEPTH	INITIAL	POTENTIAL
							Oil B/D	Gas MCF/D
Conoco Inc., SWNW 21 6S 54E, Conoco Federal 21 #1	6	22208	Wildcat		10/01/88	6,503	-	-
LASMO Energy Corporation, SWSW 9 7S 53E, Federal 14-9	6	22207	Wildcat		07/29/88	6,930	-	-
Oxy Petroleum, Inc., SWNE 19 9S 53E, Federal MA #1	6	22210	Bell Creek		12/22/88	6,818	-	-
Oxy Petroleum, Inc., SENW 35 8S 51E, Federal MB #1	6	22211	Leary		12/30/88	7,674	-	-
Sun Exploration and Production, SENW 13 9S 50E, Wm. L. Geer #1	6	22203	Wildcat		05/30/88	8,352	-	-
083 Richland								
ANR Production Company, SESW 17 22N 60E BN 24-17	1	21763	Mondak, West	Madison	01/17/88	9,300	103	61
Bass Enterprises Production Co., NENE 29 22N 59E, Degr 29-44	1	21769	Eagle	Red River	08/12/88	12,360	70	-
EP Operating Company, NWSW 16 23N 58E, State 12-16	1	21764	Vaux	Madison	01/29/88	10,525	91	67
EP Operating Company, SWSE 27 23N 58E, Simard 15-27	1	21770	Vaux	Madison	08/22/88	9,350	130	121
EP Operating Company, NESE 26 23N 58E, Anderson 9-26	1	21772	Vaux	Dawson Bay	12/14/88	12,550	240	190
EP Operating Company, NESE 22 24N 57E, W.L. McMillen #1	4	21716	Mustang **	Madison	08/29/88	10,702	97	-
EP Operating Company, NWSE 13 24N 57E, Almond 10-13	6	21771	Wildcat		09/29/88	12,700	-	-
Nicor Exploration Company, NESW 36 25N 57E, State 23-36	6	21773	Wildcat		11/21/88	12,798	-	-
Slawson, Donald C., Oil Prod., NENW 5 25N 59E, Four Mile 4-5	4	21768	Cattails	Ratcliffe	06/29/88	9,251	120	-
XOIL, Inc., NESE 2 22N 57E, Kohlman 10x-2	1	21631	Putnam	Ratcliffe	08/19/88	8,997	47	-
085 Roosevelt								
Aberdeen American Petroleum, NENW 4 29N 50E, Iverson-Mason 4-2	1	21547	Poplar, Northwest	Charles C	03/28/88	6,365	30	-
American Hunter Exploration, NWNE 11 30N 58E, Big Sky #1	6	21549	Wildcat		03/20/88	11,288	-	-
Balcron Oil Company, NWNW 29 31N 48E, Tribal 11-29	6	21555	Wildcat		10/12/88	7,815	-	-
Christmann Energy Corp., SWSW 33 30N 48E, Patterson 1-33	6	21552	Wildcat		07/03/88	7,670	-	-
Christmann Energy Corp., SENW 9 29N 47E, Rensvold 1-9	6	21553	Wildcat		05/30/88	7,575	-	-
Christmann Energy Corp., SWSW 35 30N 47E, Rusche 1-35	6	21554	Wildcat		06/16/88	7,465	-	-
Sinclair Oil Corporation, NESE 2 30N 47E, Sethre 9-2	6	21556	Wildcat		09/28/88	7,750	-	-
Sinclair Oil Corporation, SWSE 24 31N 47E, Long 15-24	6	21557	Wildcat		09/06/88	7,758	-	-
Sun Exploration and Production, NWNW 28 28N 58E, W. Knudsen #1	4	21545	Bainville **	Red River	02/22/88	12,510	109	53
Thermal Exploration, Inc., SWSE 20 31N 47E, Lickapaw 34-20	6	21548	Wildcat		01/19/88	7,710	-	-
087 Rosebud								
Apache Corporation, SENE 19 11N 32E, Kincheloe 8-19A	3	21610	Sumatra		10/04/88	4,730	-	-
Champlin Petroleum Company, NWSW 1 11N 32E, Coffee 17-1 #2	8	21582	Wildcat		04/15/86	5,964	-	-
Grace Petroleum Corporation, NCS2 4 11N 32E, High Five Unit WIW 5	7	21607	High Five	Stensvad	10/24/88	5,625	-	-
Huckabay, E. Doyle Ltd., Lt 1 4 11N 32E, Kincheloe Unit 2-4	3	21611	Kincheloe Ranch		09/20/88	5,530	-	-
Huckabay, E. Doyle Ltd., SESW 33 12N 32E, Grebe 2-33 WIW	6	21613	Kincheloe Ranch		11/06/88	5,531	-	-
Smokey Oil Company, NWNE 30 11N 33E, Grebe 31-30	6	21605	Wildcat		01/10/88	4,975	-	-
Sun Exploration and Production, SENW 25 10N 36E, Jubilee Hunnes #1	6	21606	Wildcat		12/29/87	4,250	-	-
True Oil Company, SESW 11 12N 33E, Galt 24-11	6	21608	Wildcat		05/31/88	5,040	-	-
TXO Production Corp., SWNW 21 11N 33E, Schmidt C #1	3	21566	Sumatra		12/13/84	5,041	-	-
091 Sheridan								
Coastal Oil & Gas Corporation, NENE 34 35N 58E, Andersen 1-34-35-58	4	21630	Goose Lake, S.E.	Ratcliffe	09/02/88	11,200	70	42
Cox, Edwin L., NWSE 17 37N 56E, Kavon Farms 1-17	6	21626	Wildcat		02/23/88	10,502	-	-
Credo Petroleum Corporation, NESE 11 37N 56E, Joyes 43-11 #1	1	21638	Salt Lake	Red River	09/20/88	10,400	226	-
Holden Energy Corp., SENW 11 37N 55E, Mills 11-1	6	21637	Wildcat		09/25/88	10,454	-	-
Meridian Oil, Inc., NWSE 14 34N 58E, Sullivan 33-14	1	21624	Divide Area	Red River	01/26/88	11,335	310	152
Quadra Oil & Gas, Inc., NWNW 9 37N 55E, Collins 9-4	3	21643	Dooley		11/23/88	6,625	-	-
Reef Oil Corporation, NESW 18 37N 52E, Kamm-Robinson Unit 1	6	21644	Wildcat		11/04/88	6,500	-	-
Santa Fe Energy Company, SWSE 9 36N 54E, Crissler #3	1	21348	Raymond	Nisku		8,131	35	-
Slawson, Donald C., Oil Prod., SWNE 25 34N 58E, Haaven 1-25	4	21625	Divide **	Red River	05/13/88	11,375	112	109
Slawson, Donald C., Oil Prod., NWNW 6 31N 55E, Bobby Dale 1-6	3	21629	Wildcat		03/02/88	11,060	-	-
Sun Exploration and Production, SWNE 24 33N 55E, Connoles Trust #2	1	21631	Reserve II	Winnipegosis	08/22/88	10,994	90	50
TCPL Resources U.S.A. Ltd., NENE 28 34N 58E, Melby 3-2	1	21634	Divide	Ratcliffe	07/15/88	7,400	30	-
Thermal Exploration, Inc., NESE 17 31N 59E, Hoff 43-17	6	21642	Wildcat		12/06/88	12,300	-	-
Union Texas Petroleum Corp., SWSE 5 37N 55E, Neste Syme 5-3	1	21632	Dooley	Ratcliffe	06/04/88	6,580	115	14
Union Texas Petroleum Corp., NESW 5 37N 55E, Neste Syme 5 #4	1	21645	Dooley	Ratcliffe	10/28/88	6,610	100	10
Union Texas Petroleum Corp., SESE 21 32N 58E, Neste Thiel 21-1	3	21633	Dwyer		06/28/88	7,950	-	-
Union Texas Petroleum Corp., NWSE 5 37N 55E, Daryle Syme 5-2	3	21627	Wildcat		03/09/88	6,450	-	-
Union Texas Petroleum Corp., SWNE 1 35N 58E, Neste Meyer 1-1	6	21640	Wildcat		10/28/88	7,050	-	-

1988 WELL COMPLETIONS (CONTINUED)

COUNTY, OPERATOR, LOCATION, WELL NAME	STATUS CODE	API NO.	FIELD	PRODUCING FORMATION	DATE COMPLETED	TOTAL DEPTH	INITIAL Oil B/D	POTENTIAL Gas MCF/D
095 Stillwater								
Axem Resources Incorporated, SESW 26 4N 20E, Painted Robe 14-26	6	21220	Wildcat		02/21/88	2,840	-	-
8alcron Oil Company, SWNW 29 4N 20E, 8rickley 12-29	2	21219	8ig Coulee	Lakota	01/04/88	2,956	-	25
8alcron Oil Company, NWNW 26 3N 21E, Marsh 4-26	5	21199	Little 8asin	Frontier	07/23/85	1,352	-	300
8alcron Oil Company, NWNE 35 3N 21E, Flanagan 31-35	6	21222	Wildcat		08/19/88	3,300	-	-
8alcron Oil Company, NENW 6 1N 20E, Zindler 21-6	6	21224	Wildcat		08/25/88	2,000	-	-
8alcron Oil Company, NWSE 23 1N 22E, C&H Farms 33-23	6	21226	Wildcat		09/22/88	3,750	-	-
Smokey Oil Company, NENW 35 3S 16E, 8ailey 21-35	6	21221	Wildcat		06/26/88	5,680	-	-
Sunburst Exploration, Inc., NENE 19 1N 22E, Cash-in #1	6	21227	Wildcat		11/10/88	1,445	-	-
099 Teton								
Croft Petroleum Company, NESE 11 26N 7W, Campbell 9-11	4	21270	Wildcat	Madison	01/05/88	3,083	3	-
Hawkins, Robert S., SWNW 1 27N 5W, M.C. 8rownell 5	1	21281	Pondera	Madison	09/16/88	2,215	2	-
Montana Power Company, NENE 16 25N 3W, State 1-16	6	21282	Wildcat		10/15/88	1,875	-	-
S & J Operating Co., NENE 28 25N 2E, S. Wilson 1-28	6	21279	Wildcat		05/01/88	1,790	-	-
Smokey Oil Company, NESW 12 24N 2W, Toeckes 23-12	6	21272	Wildcat		02/01/88	3,680	-	-
Smokey Oil Company, NENE 26 24N 4W, Holmes 41-26	6	21273	Wildcat		04/23/88	4,000	-	-
Smokey Oil Company, NWN 25 27N 6W, 8alcron State 31-25	6	21274	Wildcat		02/08/88	2,750	-	-
Smokey Oil Company, NWN 9 26N 6W, Weare 31-9	6	21276	Wildcat		04/10/88	2,900	-	-
True Oil Company, SENW 29 24N 3W, Luinstra 22-29	6	21275	Wildcat		04/23/88	3,882	-	-
101 Toole								
8acon, J. R. Drilling, Inc., NWN 29 35N 3W, Solberg 17	3	23242	Kevin Sunburst		06/02/88	1,789	-	-
8acon, J. R. Drilling, Inc., NESE 25 35N 4W, Aronow 25-5	2	23243	Kevin Sunburst	Sunburst	06/09/88	1,795	-	344
8acon, J. R. Drilling, Inc., SWNE 2 35N 3W, Engle 2	3	23244	Kevin Sunburst		6/22/88	1,965	-	-
8acon, J. R. Drilling, Inc., SESE 25 35N 4W, Aronow 25-6	2	23305	Kevin Sunburst	Sunburst	12/29/88	1,575	-	370
8acon, J. R. Drilling, Inc., SWSE 32 31N 2W, Underdahl 1	6	23206	Wildcat		04/14/88	2,224	-	-
8acon, J. R. Drilling, Inc., SWNW 31 37N 3W, McAlpine 5-31	2	23301	Wildcat	8ow Island	12/14/88	1,560	-	194
8acon, J. R. Drilling, Inc., SWNW 9 37N 1E, Mielke 5-9	5	23303	Police Coulee **	8ow Island	12/22/88	937	-	211
8alcron Oil Company, SESW 32 32N 3E, State 1-32	2	23264	Devon, East	8ow Island	08/09/88	745	-	335
8erenergy Corporation, NWSW 31 36N 2W, Flesch 1	1	23196	Kevin Sunburst	Sunburst	03/26/88	1,710	17	-
8erenergy Corporation, SESE 36 36N 3W, Dix Mont State 12	1	23197	Kevin Sunburst	Sunburst	04/19/88	1,725	23	-
8erenergy Corporation, NESW 31 36N 2W, Flesch 3	1	23221	Kevin Sunburst	Sunburst	05/20/88	1,675	14	-
8erenergy Corporation, SWSW 31 36N 2W, Flesch 2	1	23226	Kevin Sunburst	Sunburst	05/20/88	1,650	15	-
8erenergy Corporation, NESW 31 34N 2W, Flesch 4	1	23253	Kevin Sunburst	Sunburst	06/12/88	1,680	21	-
8erenergy Corporation, SWNE 31 36N 2W, Svare 1	1	23263	Kevin Sunburst	Sunburst	07/08/88	1,650	21	-
8bluejay Resources, Inc., SWNE 19 36N 3W, Kashmark 7-19	2	23205	Amanda	Sunburst	04/01/88	2,580	-	200
8bluejay Resources, Inc., SESE 21 36N 4W, Fitzpatrick 16-21	2	23285	Cut Bank	8ow Island	10/15/88	2,015	-	50
8bluejay Resources, Inc., SENE 15 35N 4W, Shinn 1-15	3	23188	Kevin Sunburst		01/01/88	2,320	-	-
8bluejay Resources, Inc., SESW 31 36N 2W, Sievers 14-31	3	23190	Kevin Sunburst		01/22/88	1,620	-	-
8bluejay Resources, Inc., NWSE 31 36N 2W, Sievers 10-31	1	23192	Kevin Sunburst	Sunburst	01/29/88	1,575	10	-
8bluejay Resources, Inc., SESW 32 36N 2W, Riordan 14C-32	8	23193	Kevin Sunburst	Sunburst	02/05/88	1,607	-	-
8bluejay Resources, Inc., NENW 32 36N 2W, Dodd 3C-32	3	23287	Kevin Sunburst		10/22/88	1,620	-	-
8bluejay Resources, Inc., NWSE 27 36N 4W, Adaskavich 10-27	2	23199	Kevin Sunburst	8ow Island	02/24/88	1,873	-	100
8bluejay Resources, Inc., NESW 5 32N 1W, Welker 11-5	2	23198	Old Shelby		03/02/88	1,337	-	200
8bluejay Resources, Inc., SENE 6 32N 1W, Welker 8-6	3	23204	Old Shelby		03/24/88	1,473	-	-
8bluejay Resources, Inc., NENE 4 32N 1W, Nelson 1-4	3	23207	Old Shelby		04/22/88	1,473	-	-
8bluejay Resources, Inc., NWNW 9 32N 1W, Nelson 4-9	2	23281	Old Shelby	8ow Island	09/30/88	1,474	-	150
8bluejay Resources, Inc., N2NW 13 36N 3W, Simmes Ranch 2	6	23098	Wildcat		12/06/86	781	-	-
8bluejay Resources, Inc., NWNW 27 36N 4W, Spencer-Lohoff 4-27	5	23191	Cut Bank	8ow Island	01/21/88	1,842	-	100
Branch, Jerry L., CS2 3 33N 3W, Gordon 9-3	2	23275	Kevin Southwest	8ow Island/ Dakota	08/28/88	1,540	-	132
Branch, Jerry L., SENW 11 33N 3W, Rittenhouse 6-11	2	23276	Kevin Southwest	Dakota	08/30/88	965	-	65
Branch, Jerry L., SWSE 13 33N 3W, 8yrne 15-13	2	23280	Kevin Southwest	Dakota	11/22/88	1,535	-	80
Branch, Jerry L., NWNE 11 33N 3W, Rittenhouse 2-11	2	23286	Kevin Southwest	Dakota	10/13/88	968	-	57
Branch, Jerry L., SENE 5 34N 3W, Tanner 8-5	3	23216	Kevin Sunburst		04/27/88	1,531	-	-
C.R. Energy Corp., NWN 1 35N 3W, Federal #2	1	23119	Kevin Sunburst	Sunburst	04/04/87	1,720	10	-
C.R. Energy Corp., NENW 1 35N 3W, Federal 51428 1	1	23127	Kevin Sunburst	Sunburst	05/17/87	1,775	15	-
C.R. Energy Corp., NENW 1 35N 3W, Federal M51428 #3	1	23146	Kevin Sunburst	Sunburst	07/23/87	1,780	8	-
Coolidge, G. 8., Inc., NENW 32 35N 2W, Schmidt 5	1	23185	Kevin Sunburst	Madison	12/09/87	1,534	1	-

1988 WELL COMPLETIONS (CONTINUED)

COUNTY, OPERATOR, LOCATION, WELL NAME	STATUS CODE	API NO.	FIELD	PRODUCING FORMATION	DATE COMPLETED	TOTAL DEPTH	INITIAL	POTENTIAL
							Oil B/D	Gas MCF/D
Crescent Oil & Gas Corporation, NENE 8 32N 2W, Hansen 1-8	3	23278	Old Shelby		09/08/88	1,447	-	-
Crescent Oil & Gas Corporation, SENE 34 33N 2W, Riordan 2-34	2	23279	Old Shelby	Sunburst	09/29/88	1,518	-	442
Crescent Oil & Gas Corporation, SESE 1 33N 2W, Nepstad 1-1	2	23288	Prarie Dell	Sunburst	11/17/88	1,323	-	155
Fulton Fuel Co., SWSE 27 36N 3W, Anderson Fed. #34-27	2	23219	Kevin Sunburst	8ow Island	05/24/88	875	-	100
Mariah Oil and Gas, Inc., NESE 19 35N 1W, Kalispell-Kevin 29N	1	23256	Kevin Sunburst	Madison	07/20/88	1,592	-	-
Mariah Oil and Gas, Inc., NWNW 29 35N 1W, Miles 11N	1	23257	Kevin Sunburst	Madison	07/28/88	1,593	2	-
Mariah Oil and Gas, Inc., SESW 17 35N 2W, Larson 12N	1	23258	Kevin Sunburst	Madison	10/19/88	1,660	-	-
Mariah Oil and Gas, Inc., NENE 18 35N 1W, Gauss 9N	1	23259	Kevin Sunburst	Madison	07/27/88	1,780	-	-
Mariah Oil and Gas, Inc., SESW 17 35N 1W, Martin 2 #16N	1	23261	Kevin Sunburst	Madison	09/30/88	1,660	4	-
Mariah Oil and Gas, Inc., NENE 27 35N 2W, A. Lorenzen 29N	1	23265	Kevin Sunburst	Madison	11/21/88	1,530	1	-
Mariah Oil and Gas, Inc., NWNW 21 35N 1W, Enfield Zachor 22N	1	23266	Kevin Sunburst	Madison	12/07/88	1,710	1	-
Mariah Oil and Gas, Inc., SESW 21 35N 2W, McManus 23N	1	23267	Kevin Sunburst	Madison	08/26/88	1,563	2	-
Mariah Oil and Gas, Inc., NENE 14 35N 2W, DeParment 19N	1	23271	Kevin Sunburst	Madison	08/16/88	1,596	28	-
Misc. Oil Co., SWSW 13 35N 2W, Haggerty 7	8	22683	Kevin Sunburst		09/05/84	1,567	-	-
Montana Power Company, SWNE 11 31N 1E, Wigen Brothers 7-11	3	23217	Devon, South Unit		05/10/88	1,862	-	-
Montana Power Company, NWSE 13 32N 3E, Kinyon 10-13	2	23218	Kinyon Coulee Area	8ow Island	08/09/88	2,400	-	50
Montana Power Company, SESE 21 33N 1W, Wilkin-Marmont 16-21	2	23201	Old Shelby	Swift/Sunburst	04/16/88	1,354	-	429
Montana Power Company, SWSW 19 33N 1W, Gypsy Vines 13-19	5	23202	Old Shelby	Sunburst	04/15/88	1,405	-	147
Natural Gas Processing Co., SESW 15 32N 2E, Hellinger 14-15	3	23211	Devon		05/11/88	758	-	-
Natural Gas Processing Co., SESE 13 33N 1E, Driscoll 16-13	3	23291	Devon		11/21/88	961	-	-
Natural Gas Processing Co., SESE 13 33N 1E, Driscoll 16-13R	2	23299	Devon	8ow Island	11/23/88	731	-	121
Northland Royalty Operating Co., NESE 34 34N 2W, Flesch 9-34	2	23208	Prarie Dell	8ow Island	06/17/88	1,210	-	153
Northland Royalty Operating Co., NENE 3 33N 2W, Epletveit 1-3	2	23209	Prarie Dell	8ow Island	04/26/88	1,403	-	245
Northland Royalty Operating Co., SENW 16 34N 2W, State 6-16	2	23210	Prarie Dell	8ow Isl./Sunburst	06/21/88	1,257	-	337
Northland Royalty Operating Co., SESE 14 34N 2W, Alme 16-14	2	23223	Prarie Dell	8ow Island	05/17/88	2,795	-	41
Northland Royalty Operating Co., N2SW 14 33N 2W, Flesch 11-14	2	23225	Prarie Dell	8ow Isl./Sunburst	06/19/88	1,292	-	326
Northland Royalty Operating Co., W2NW 23 34N 2W, Riordan 4-23	2	23228	Prarie Dell	8ow Isl./Swift	06/20/88	1,320	-	301
Northland Royalty Operating Co., NESE 4 33N 2W, Epletveit 9-4	2	23229	Prarie Dell	8ow Isl./Dakota	05/15/88	1,480	-	205
Northland Royalty Operating Co., SWSE 22 34N 2W, Rogers 15-22	2	23233	Prarie Dell	8ow Island	05/06/88	1,455	-	113
Northland Royalty Operating Co., N2NW 27 34N 2W, Fowler 4-27	2	23234	Prarie Dell	Bow Isl./Dakota	05/14/88	1,537	-	165
Northland Royalty Operating Co., N2SW 35 34N 2W, Flesch 11-35	2	23238	Prarie Dell	8ow Isl./Dakota/ Kootenai/Sunburst	06/17/88	1,234	-	323
Northland Royalty Operating Co., SENW 12 33N 2W, Miller 6-12	2	23252	Prarie Dell	8ow Isl./Dakota	06/18/88	1,229	-	492
Petrotec Production, Inc., SENE 35 36N 2W, Shaw 10	7	23245	Kevin Sunburst		05/23/88	1,606	-	-
Petrotec Production, Inc., NWNE 35 36N 2W, Yealy Shaw 23	7	23246	Kevin Sunburst		05/21/88	1,653	-	-
Petrotec Production, Inc., SESE 26 36N 2W, Shaw 11	1	23293	Kevin Sunburst	Sunburst	11/21/88	1,648	20	-
Petrotec Production, Inc., SWSE 26 36N 2W, Stone 3	1	23294	Kevin Sunburst	Sunburst	11/21/88	1,666	45	-
Ranck Oil Company, Inc., NESE 9 31N 3W, Lincoln 9-9	8	23290	Marias River		11/04/88	1,190	-	-
Ranck Oil Company, Inc., SWSW 29 34N 3E, Cavett 13A-29	6	23251	Wildcat		05/30/88	2,102	-	-
Rimrock Drilling Company, SWSE 18 34N 2W, Fee 1	8	23087	Kevin Sunburst		10/15/86	1,535	-	-
Rimrock Drilling Company, NESE 18 34N 2W, Amigo #2	3	23161	Kevin Sunburst		10/10/87	1,445	-	-
Rimrock Drilling Company, SWSW 7 34N 2W, State 11	3	23260	Kevin Sunburst		07/26/88	1,500	-	-
Rimrock Drilling Company, SESW 7 34N 2W, State 12	3	23277	Kevin Sunburst		09/08/88	1,490	-	-
Slawson, Donald C., Oil Prod., NWNW 7 33N 1W, Billmaier 4-7	2	23274	Prarie Dell	Swift	08/24/88	1,294	-	810
SoMont Oil Company, Inc., NENE 35 35N 4W, Pack West 1	2	23186	Kevin Sunburst	Madison	12/14/87	2,015	-	-
SoMont Oil Company, Inc., SESW 26 35N 4W, Page '56' 1	2	23254	Kevin Sunburst	Madison	06/20/88	2,035	-	48
SoMont Oil Company, Inc., SWNE 15 35N 4W, Page-Barkaloo 1	2	23255	Kevin Sunburst	8ow Isl./Sunburst	06/18/88	2,222	-	396
Walls, Adrian G., NWNE 2 34N 3W, Federal #1-2	2	22905	Kevin Sunburst	Kootenai	08/04/85	1,595	-	25
Walls, Adrian G., NESE 27 35N 4W, Dickens 1	1	23269	Kevin Sunburst	Madison	07/20/88	2,115	23	-
Walls, Adrian G., SESE 35 32N 3W, Zell 2	3	23241	Marias River		06/01/88	1,401	-	-
Walls, Adrian G., SENE 14 33N 2W, Flesch 1-14	2	23295	Prarie Dell	8ow Isl./Dakota/ Kootenai/Sunburst	12/05/88	1,417	-	382
Western Natural Gas Company, NESE 4 37N 2E, Continental Land 2-4	5	23268	Wildcat	8ow Island	07/24/88	1,865	-	750
107 Wheatland								
Montana Power Company, NENE 1 9N 14E, Lode 1-1	6	21024	Wildcat		01/11/88	4,718	-	-
109 Wibaux								
Exxon Corporation, SENE 18 14N 59E, L.W. Rochlitz #1	6	21067	Wildcat		09/11/88	10,125	-	-

1988 WELL COMPLETIONS (CONTINUED)

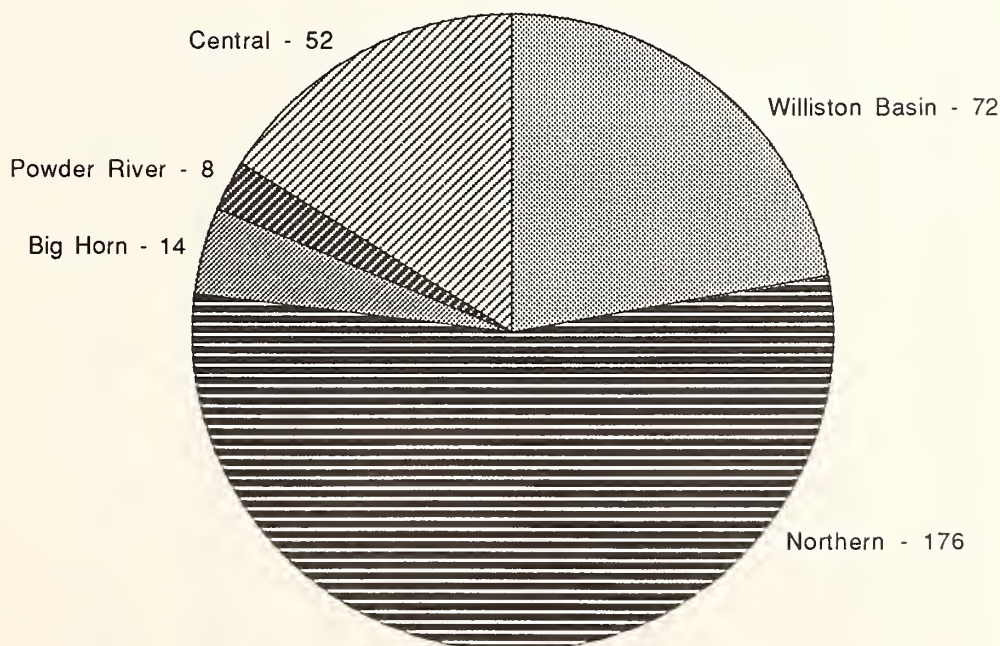
COUNTY, OPERATOR, LOCATION, WELL NAME	STATUS CODE	API NO.	FIELD	PRODUCING FORMATION	DATE COMPLETED	TOTAL DEPTH	INITIAL	POTENTIAL
							Oil B/D	Gas MCF/D
111 Yellowstone								
Balcron Oil Company, SENW 12 2S 23E, Hart 2-12	5	21198	Wildcat	Mowry	12/12/86	1,208	-	16
Balcron Oil Company, CSE 11 2S 23E, Coombs 1-11	5	21199	Wildcat	Mowry	08/18/86	1,217	-	13
Balcron Oil Company, SCNW 13 2S 23E, Shay 1-13	5	21200	Wildcat	Mowry	08/12/86	1,093	-	25
Balcron Oil Company, SWSE 36 1S 23E, State 1-36	5	21201	Wildcat	Mowry	08/19/86	1,442	-	8
Balcron Oil Company, SWSE 2 2S 23E, Markegard 1-2	5	21203	Wildcat	Mowry	09/11/86	1,413	-	4
Montana Power Company, SESW 6 1N 29E, K. Hereford 14-6	6	21216	Wildcat		04/03/88	3,734	-	-
Nyvatex Montana Corp., NWSE 3 1N 23E, Lazy KT Ranch 3-1	6	21206	Wildcat		05/11/88	4,966	-	-
R & J Production, Inc., SWNE 26 3S 24E, Mosser #14	1	21213	Mosser Dome	Mosser Sand	10/01/87	995	3	-

Status Codes:

1 - development oil well;
 2 - development gas well;
 3 - development dry hole;
 4 - exploratory oil well;
 5 - exploratory gas well;
 6 - exploratory dry hole;
 7 - service well;
 8 - other (usually temp. aband.)

* - new pay zones
 ** - extensions
 *** - new discovery

Wells Completed in 1988 (322 Wells - by Region)



1988 SUMMARY OF SECONDARY RECOVERY PROJECTS

Field	Formation	Operator	Type of Project	Injection Pattern	Date Inj. Com.	1988 Cumulative Injections M Bbls. or MMCF	Avg. Daily Inj. Rate Bbls. or MCF	No. of Inj. Wells	Source of Injection Media and Remarks
Ash Creek Crow Tribe	Shannon	Mobil	Waterflood	Peripheral	10/64	256	—	—	Idle
Ash Creek SU (MT)	Shannon	Bearcat Petroleum	Waterflood	Peripheral	10/64	1,325	22	2	WSW/Produced
Bell Creek Tertiary	Muddy	Exxon	Waterflood	5-Spot	12/80	62,85B	31,28B	17	Produced
Bell Creek A	Muddy	Exxon	Waterflood	Peripheral	4/70	204,371*	17,871	31	Produced
Bell Creek B	Muddy	Exxon	Waterflood	Peripheral	10/70	57,021	6,610	6	Produced
Bell Creek C	Muddy	Exxon	Waterflood	Peripheral	9/71	39,099	3,647	4	Produced
Bell Creek D	Muddy	Exxon	Waterflood	Peripheral	1/72	36,581*	1,70B	5	Produced
Bell Creek E	Muddy	Exxon	Waterflood	Peripheral	1/72	33,345	2,122	10	Produced
Bell Creek Ranch Creek	Muddy	Exxon	Waterflood	Peripheral	3/71	44,79B	266	1	Produced (1-mo)
Big Wall BWUTSU	Upper Tyler	Texaco	Waterflood	Random	8/66	36,862	2,369	1	Produced
Big Wall BWLTSU	Lower Tyler	Texaco	Waterflood	Random	10/84	14,182	6,120	3	Produced
Blackfoot	Cut Bank	Croft Petroleum	Waterflood	Random	7/76	3,005	623	5	Madison
Border, New	Cut Bank	P & M Petroleum	Waterflood	Random	1/82	—	—	—	Idle
Border, Old	Cut Bank	Gypsy Highview	Waterflood	Random	6/73	1,403*	145	1	Madison
Cabin Creek	Siluro-Ord	Shell	Waterflood	Semi-Peripheral	6/59	318,591*	20,489	26	Produced
Cat Creek East Dome	Ellis Sand	Robert Hoss	Waterflood	Semi-Peripheral	7/70	1,300	139	3	Third Cat Creek
Cat Creek Mosby Dome	Swift	Cenex	Waterflood	Random	7/67	6,519*	251	6	Third Cat Creek
Cat Creek Mosby	Amsden	Cenex	Waterflood	Random	6/71	313	—	—	Idle
Cat Creek Unit 1	1st Cat	Cenex	Waterflood	Semi-Peripheral	10/62	7,537	380	1	Third Cat Creek
Cat Creek Unit 1	2nd Cat	Cenex	Waterflood	Semi-Peripheral	10/62	10,536	1,15B	2	Third Cat Creek
Cat Creek Unit 2	1st Cat	Cenex	Waterflood	Semi-Peripheral	12/59	9,756	60	1	Third Cat Creek
Cat Creek Unit 2	2nd Cat	Cenex	Waterflood	Semi-Peripheral	12/59	12,43B	BB2	3	Third Cat Creek
Cut Bank Dahlquist	Cut Bank	Bluejay Resources	Waterflood	Random	11/79	1B1	14	1	Madison
Cut Bank Lander A	Lander Sand	Grey Wolf Prod.	Waterflood	Random	4/65	2,049	16	1	Madison
Cut Bank Marina	Cut Bank	P & M Petroleum	Waterflood	5-Spot	6/72	2,075	—	—	Idle
Cut Bank NC	Cut Bank	Gypsy Highview	Waterflood	5-Spot	5/78	5,466	492	10	Madison
Cut Bank NE	Moulton	Ralph E. Fair	Waterflood	5-Spot	10/67	6,042	65	2	Madison
Cut Bank NE	Cut Bank	J and G	Waterflood	5-Spot	6/63	13,409	—	—	—
Cut Bank NW	Cut Bank	Grey Wolf Prod.	Waterflood	5-Spot	1/62	18,860	52	5	Madison
Cut Bank SC	Cut Bank	Union Oil	Waterflood	5-Spot	5/63	56,531	9,727	69	Madison
Cut Bank SW	Cut Bank	J.R. Bacon Drilling	Waterflood	5-Spot	9/62	12B,393	11,570	41	Madison/Recycle
Cut Bank Tesoro	Cut Bank	City Oil Company	Waterflood	5-Spot	9/71	6,717	302	5	Madison/Recycle
Cut Bank Tweedy	Cut Bank	Gypsy Highview	Waterflood	5-Spot	6/72	956*	30	1	Madison
Cut Bank 2 Medicine	Cut Bank	Wold Oil Prop.	Waterflood	Random	12/67	5B,49B	153	1	Madison/Recycle
Darling	Cut Bank	P & M Petroleum	Waterflood	Random	2/67	—	—	—	Idle
Darling North Unit	Moulton	Buttes Resources	Waterflood	Random	2/68	2,472	—	—	Idle
Darling South Unit	Moulton	Buttes Resources	Waterflood	Random	2/67	7,54B	—	—	Idle
Dean Dome	Greybull	Eastern American	Steam Inj.	Cyclic	8/81	29	—	—	Idle
Dwyer	Charles	Conoco	Waterflood	Peripheral	10/68	5,852	230	3	Dwyer Charles
Elk Basin	Frontier	Amoco	Waterflood	Crestal	12/72	6,039	—	—	Idle
Elk Basin Unit	Tensleep	Amoco	Waterflood	Semi-Peripheral	4/67	2,431	—	—	Idle
Elk Basin	Madison	Amoco	Waterflood	Semi-Peripheral	8/61	233,841	15,121	12	Produced
Elk Basin NW	Tensleep	Amoco	Waterflood	Semi-Peripheral	1/67	5,91B	B74	1	Produced
Fairview	Red River	Mepna	Pressure M	Random	5/70	4,1B6	—	—	Idle
Flat Coulee	Swift	Breck Operating	Waterflood	Peripheral	2/72	12,755	2,420	12	Eagle
Flat Lake Unit	Ratcliffe	Chevron USA	Pressure M	Random	6/71	37,7B9	4,0B4	15	Produced
Flat Lake West	Ratcliffe	Chevron USA	Pressure M	Random	11/74	7,535	840	5	Produced
Frannie	Tensleep	Conoco	Waterflood	Random	11/70	390,231	94,624	50	Produced
Frannie	Tensleep	Conoco	LPG Injection	Random	11/70	30,322*	—	—	Idle
Fred & George Creek	Sunburst	William M. Fulton	Waterflood	Random	7/76	50,0B7	5,926	2	Madison/Eagle
Gas City	Red River	Shell	Waterflood	Semi-Peripheral	10/69	16,136	569	3	Mission Canyon
Goose Lake	Ratcliffe	Apache Corporation	Waterflood	Semi-Peripheral	1/73	23,716	3,235	2	Produced
Graben Coulee	Cut Bank	Monte Grande	Waterflood	Random	7/83	268	335	2	Madison
Gumbo Ridge	Tyler B	Meridian Oil	Waterflood	Semi-Peripheral	6/80	2,760	77	1	Produced Cat Creek
Highview	Madison	Mountain States	Co2 Injection	Random	7/82	600	—	—	Idle
Ivanhoe	Tyler	Tomahawk Oil	Pressure M	Random	5/64	115	43	1	Produced
Jim Coulee	Tyler	Union Texas	Waterflood	Semi-Peripheral	7/72	15,260	4,133	4	Produced Cat Creek
Keg Coulee Unit	Tyler	Buttes Resources	Waterflood	Semi-Peripheral	8/66	5,666	467	2	Produced
Keg Coulee Tyler SU	Tyler	Damson Oil	Waterflood	Semi-Peripheral	12/69	3,609	—	—	Idle
Keg Coulee NW Unit	Tyler	North Central Oil	Waterflood	Semi-Peripheral	11/70	6,057*	77	1	Madison
Kelley	Tyler B	Union Texas	Waterflood	Random	7/69	3,540	655	1	3rd Cat Creek
Kevin Sunburst SU	Sunburst	Texaco	Waterflood	Random	8/64	12,855	67	4	Madison
Kevin Homestake SU	Sunburst	Petro Production	Waterflood	Random	8/64	7,022*	1,064	8	Madison
Laird Creek	Swift	Meridian Oil	Waterflood	Semi-Peripheral	2/77	B07	—	—	Idle
Little Beaver	Red River	Shell	Waterflood	Semi-Peripheral	8/66	49,478*	5,451	10	Produced
Little Beaver East	Red River	Shell	Waterflood	Semi-Peripheral	4/65	19,28B*	5,345	B	Produced

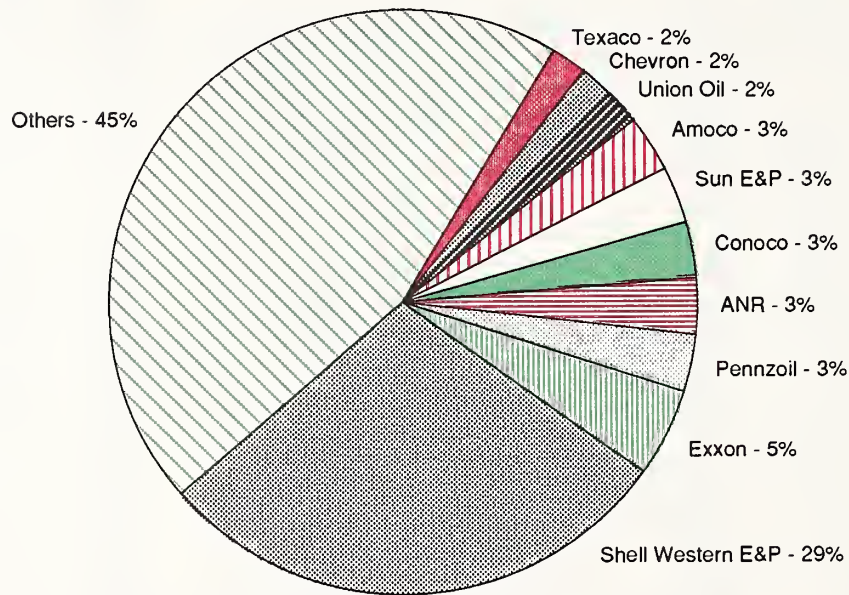
1988 SUMMARY (CONTINUED)

Field	Formation	Operator	Type of Project	Injection Pattern	Date Inj. Com.	1988	Avg. Daily Inj. Rate Bbls. or MCF	No. of Inj. Wells	Source of Injection Media and Remarks
						Cumulative Injections M Bbls. or MMCF			
Little Wall South	Tyler	Union Texas	Waterflood	Random	10/83	6,916	5,964	5	Unit Wells
Little Wall South	Gunderson	Beartooth Oil & Gas	Waterflood	Random	10/87	273	650	1	Produced
Lookout Butte Coral	Red River	Shell	Waterflood	Semi-Peripheral	4/67	73,890*	40,481	10	Minnelusa
Lookout Butte East	Red River B	Meridian Oil	Waterflood	Pilot	7/88	26	142	1	Produced
Mason Lake	1st Cat Creek	Nielco	Waterflood	Unknown	11/88	47	774	1	Amsden
Melstone North	Tyler	True Oil	Waterflood	Unknown	1/83	4,095	2,940	6	3rd Cat Creek
Monarch	Siluro-Ord	Shell	Waterflood	Unknown	12/73	6,606	311	2	Unknown
Pennel	Siluro-Ord	Shell	Waterflood	Random	8/69	210,277*	30,993	64	Dakota/Produced
Pine A	Siluro-Ord	Shell	Waterflood	Semi-Peripheral	3/59	159,473	19,034	23	Fox Hills/Produced
Pine C & D	Red River	Shell	Waterflood	Semi-Peripheral	3/68	23,447*	1,029	4	Lodgepole
Prichard Creek	Sunburst	Fulton Producing	Waterflood	Random	4/73	1,184	—	—	Idle
Ragged Point Tyler A	Tyler	Buttes Resources	Waterflood	Semi-Peripheral	12/66	10,875	1,070	1	Cat Creek
Ragged Point SW	Tyler	Graham Royalty	Waterflood	Random	10/82	4,298	2,134	3	WSW
Raymond	Nisku	Santa Fe Energy	CO2 Injection	Unknown	8/83	1,113	600	1	Duperow
Regan Dome	Madison	Union	Waterflood	Random	7/73	5,806	1,342	5	Produced
Red Creek	Cut Bank	Exxon	Waterflood	5-Spot	6/65	21,903	—	—	See Border
Roscoe Dome	Lakota	Eastern American	Steam Inj.	Unknown	5/82	5	—	—	Idle
Shepherd	Judith River	Summit Resources	Secondary	Random	11/84	95	22	1	Tyler
Stensvad	Tyler	Tomahawk Oil	Waterflood	Semi-Peripheral	12/63	29,305*	489	1	Produced
Sumatra Central	Tyler	Texaco	Waterflood	Semi-Peripheral	9/69	162,915	22,909	16	Madison & Produced
Sumatra Grebe	Tyler	Cenex	Waterflood	Random	6/75	716	—	—	Madison & Produced
Sumatra NE	Tyler	Texaco	Waterflood	Semi-Peripheral	9/69	11,363	1,480	5	Madison & Produced
Sumatra Sawyer	Tyler	Buttes Resources	Waterflood	Semi-Peripheral	6/80	1,079	123	1	Madison
Sumatra SE	Tyler	Buttes Resources	Waterflood	Semi-Peripheral	12/69	24,968	2,405	4	Madison
Sumatra West	Tyler	Conoco	Waterflood	Semi-Peripheral	10/68	55,602	5,450	4	Produced
Sumatra W. Kincheloe	Tyler	Apache Corporation	Waterflood	Semi-Peripheral	5/82	11,729	6,481	6	Madison
Tippy Buttes	Tyler	True Oil	Waterflood	Random	5/82	229	181	1	Dakota
Winnett Junction	Tyler	TGX Corporation	Waterflood	Random	10/77	7,090	1,336	2	Produced & WSW

* Cumulative figures adjusted by operator.

Top Producing Oil Companies

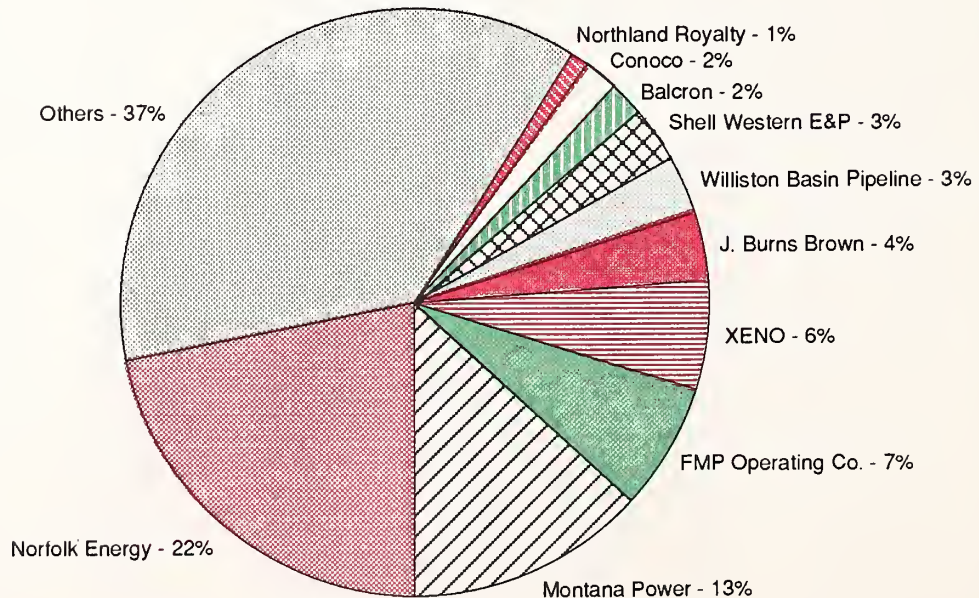
23,317,456 Barrels



286 Companies; Year - 1988

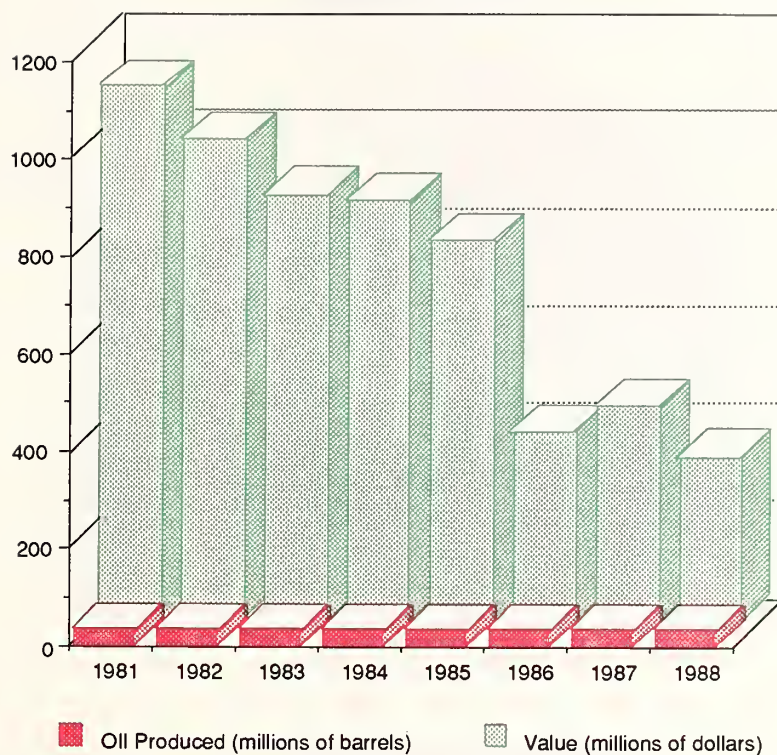
Top Producing Gas Companies

53,013,554 Mcf



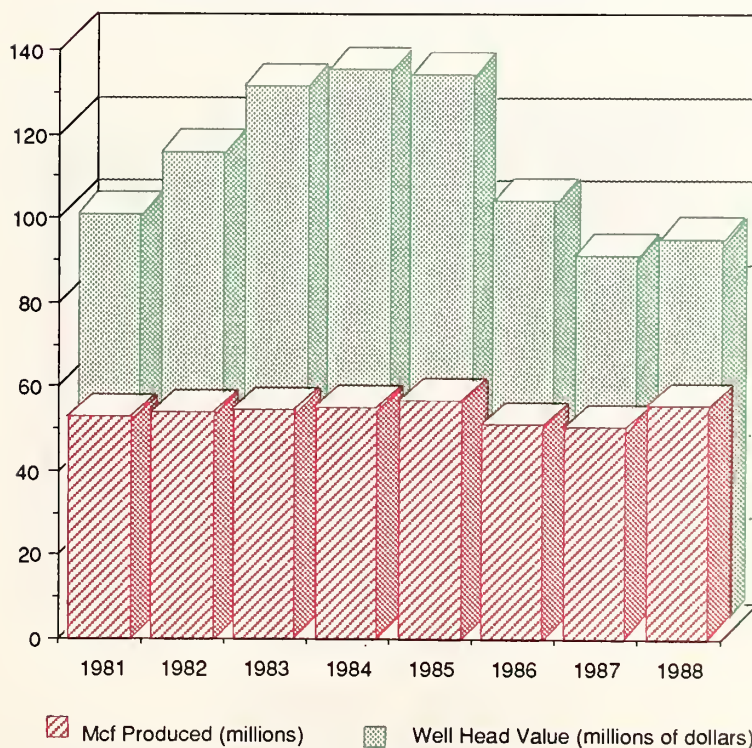
209 Companies; Year - 1988

Oil Value and Oil Produced

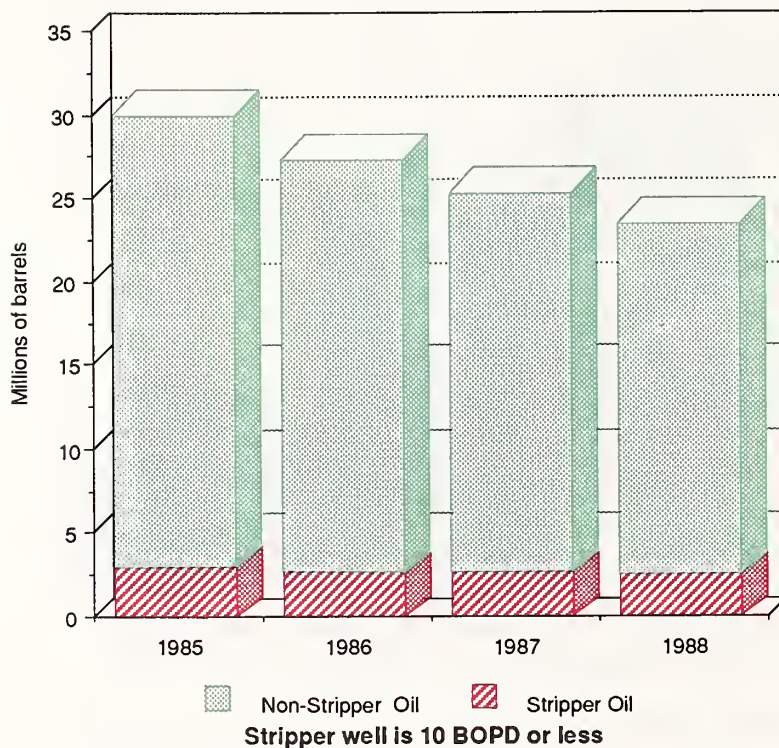


Gas Produced and Gas Value

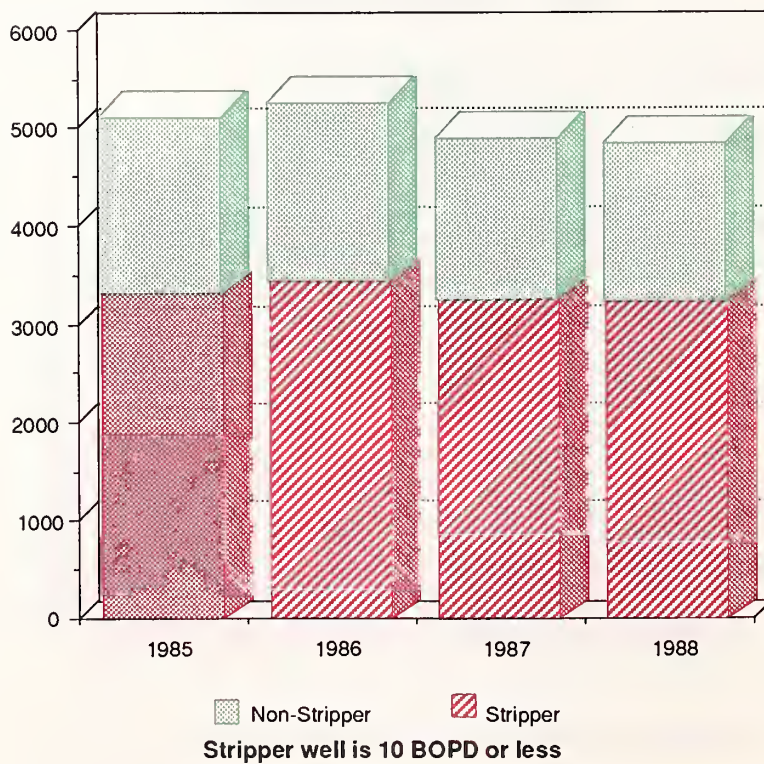
Natural and Associated Gas



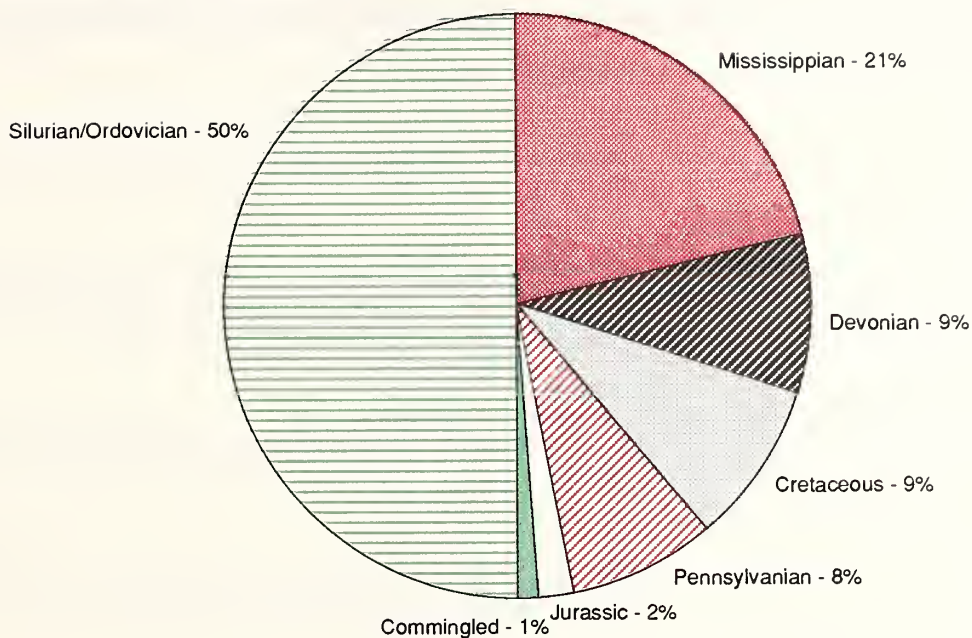
Stripper and Non-Stripper Oil Production



Stripper and Non-Stripper Number of Producing Wells

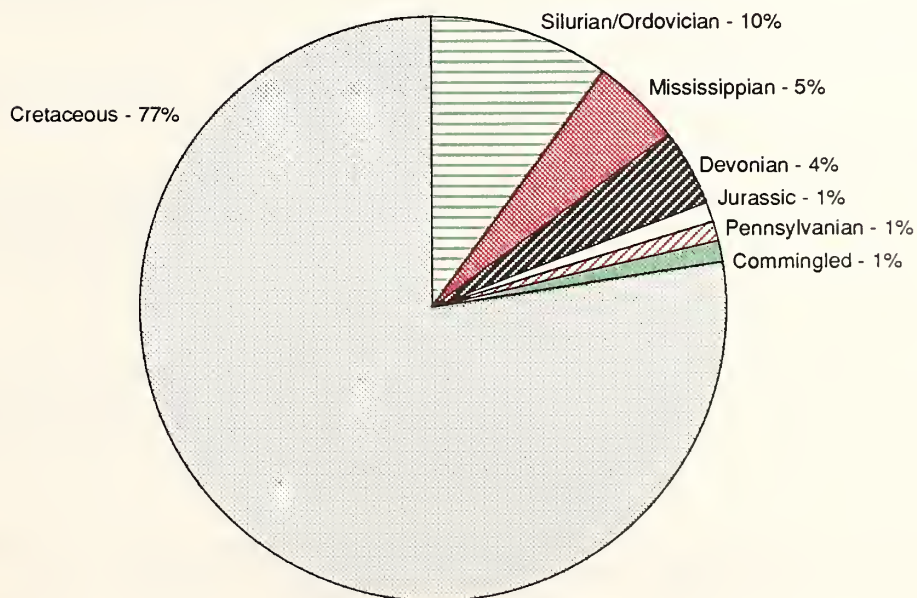


Oil Production By Geologic Period



23,317,456 Bbls Produced

Gas Production By Geologic Period Natural & Associated Gas



53,013,554 Mcf Produced

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
ACE HIGH				
Tyler	0	0	1	Statewide.
ALMA				
Bow Island/Blackleaf	0	3	0	640-acre spacing units. Location to be no closer than 990' from spacing unit boundary. (Order 19-77).
AMANDA				
Bow Island	0	8	0	320-acre spacing units for gas with one well per horizon from the base of the Swift to the surface to be located no closer than 660' from unit boundary. Spacing unit to consist of two contiguous quarter sections lying within one or two governmental sections. (Order 76-79) Field enlargement. (Orders 25-83, 1-85, 25-88 and 42-88).
Swift-Sunburst	0	5	0	
ANVIL				
Nisku	1	0	0	320-acre spacing units for Red River "B" and "C" with one well per zone no closer than 660' to unit boundary; commingling approved for one well only per spacing unit. (Order 75-85)
Ratcliffe	2	0	1	
Red River	7	0	0	Produced water disposed into the Dakota formation. (Order 12-A-82)
Winnipegosis	1	0	0	
ARCH APEX				
Bow Island	0	39	4	330' from legal subdivision; 2,400' from any other drilling or producible gas well producing from the same reservoir; 75' topographic tolerance. (Order 4-60) Sometimes called Colorado Blackleaf pool. (Swift) Statewide.
Swift-Sunburst	2	1	3	
ASH CREEK				
Shannon	2	0	4	Spacing waived within unitized portion of field except no well may be drilled closer than 660' from unit boundary. (Order 4-65) Waterflood started October 1964. (Orders 22-64, 15-66)
BADLANDS				
Eagle	0	9	3	Drilling and spacing units allow one well per governmental section to be located anywhere within a section but no closer than 990' to a section line. (Order 22-78)
BAINVILLE				
Red River	3	0	0	Statewide. Single 320-acre spacing unit for Winnipegosis formation. (Order 117-84) Single 330-acre spacing unit for Red River and Winnipegosis formations. (Order 18-88)
Red River-Gunton	1	0	0	
Winnipegosis	1	0	0	
BAINVILLE II				
Red River	3	0	0	320-acre spacing units; no well closer than 660' to the unit boundaries. (Order 36-82) Field reduction. (Order 16-85) Single spacing unit. (Order 69-85)
BAINVILLE, NORTH				
Ratcliffe	1	0	0	320-acre spacing units to consist of two governmental quarter sections located in either one or two governmental sections. Wells to be located no closer than 660' to unit boundary and no closer than 1,650' to any well producing from the same formation. (Order 84-79) Board Order 84-79 is amended to permit a tolerance of 150' from the well location requirements of said order for topographic purposes. (Order 39-80)
Red River	3	0	0	
Winnipegosis	3	0	0	
Interlake	1	0	0	
BAINVILLE, WEST				
Madison	1	0	0	320-acre spacing units to consist of two governmental quarter sections that may be in either one or two governmental sections. Location to be no closer than 660' to the unit boundary or closer than 1,650' to another producing well within the field. (Orders 19- 78, 42-79) 320-acre spacing units aligned in east-west direction with permitted well to be no closer than 660' to unit boundary. (Order 57-80)
Red River	1	0	0	
BANNATYNE				
Swift	16	0	0	Center of 10-acre tracts, 50' topographic tolerance. Commingling permitted. (Order 20-58) Pilot waterflood of Swift suspended in 1963.
Madison	9	0	0	
BATTLE CREEK				
Eagle	0	44	1	Production of gas from all formations from surface to top of Virgelle formation. One well per producing horizon per section no closer than 990' to section line but allowing additional wells in each section no closer than 1,320' to wells producing from same horizon. (Order 40- 86)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
BEAN BLOSSOM				
Tyler B	3	0	0	Three spacing units with one well per lot. (Order 23-86) SWD approved EPA-87, 88.
BEARS DEN				
Bow Island	0	1	0	Statewide.
Swift	9	2	0	
BELFRY				
Kootenai	1	0	0	Statewide.
BELL CREEK				
Muddy	97	0	208	Originally 40-acre spacing units with location 660' from unit boundary with 150' tolerance for topographic reasons only. (Orders 37-67, 39-67, 50-67, 1-69, 17-70) Field now unitized. Tertiary program. (Order 25-80) Six areas unitized (Unit "A," "B," Ranch Creek, "C," "D," and "E"). Floods used Madison water. (Orders 7-70, 23-70, 8-71, 26-71, 35-71, 36-71) Tertiary enhanced recovery authorized for Units "A," "B," "D," (Orders 82-84, 111-84, 112-84). Ranch Creek enhanced recovery approved EPA-85.
BELL CREEK, SOUTHEAST				
Muddy	0	1	0	160-acre spacing units, wells 660' from spacing unit boundary. (Order 31-71)
BENRUD				
Charles	0	0	1	160-acre spacing units with permitted location within a 1,320' square in center of quarter section. (Order 6-65) Field boundaries reduced. (Order 66-84)
Madison	1	0	0	Water disposal into Judith River formation. (Order 64-62)
BENRUD, EAST				
Nisku	4	0	0	Same as Benrud Field. (Order 6-65) Single spacing unit. (Orders 108-84 and 7-85) Water disposal into Judith River formation. (Orders 64-62, 32-66, 4-A-73) SWD approved EPA-87.
BENRUD, NORTHEAST				
Nisku	1	0	0	Same as Benrud Field. (Order 6-65) Water disposal into Judith River formation. (Order 32-66)
BERTHELOTE				
Sunburst	3	0	0	Wells located 330' from lease lines; 660' between wells with no more than one well per governmental quarter-quarter section. (Order 18-66)
BIG COULEE				
Cat Creek 3	0	5	1	Statewide. Single spacing unit: Sec. 29, T4N R20E for production of gas from Morrison formation. (Order 25-86)
Lakota	0	0	1	
Morrison	0	2	0	
BIG GULLY				
Tyler	2	0	0	Statewide.
BIG GULLY, NORTH				
Tyler	1	0	0	Statewide.
BIG MUDDY CREEK				
Mission Canyon	3	0	1	One well per 320-acre spacing unit with well no closer than 660' from boundary of four east-west units. (Order 4-75)
Red River	1	0	0	
BIG ROCK GAS FIELD				
Blackleaf	0	26	0	640-acre spacing units for Blackleaf "A" formation. Location to be no closer than 990' to any governmental section line. (Order 31-78) Amended to allow 2 wells per section in 5 sections. (Order 64-85)
Bow Island	0	10	4	
Madison	0	0	2	
Colorado	0	5	0	

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
BIG WALL				
Amsden	3	0	0	Spaced by old statewide spacing; 330' from lease or property line, 990' between wells in same reservoir. (Order 12-54) Previous disposal into Tyler "A" stopped in 1961. Waterflood of Tyler "B" sand started August 1966. (Order 22-66) Another Tyler "B" waterflood authorized by Order 96-83. Excess produced water disposed into the Tyler "B" formation. (Order 13-A-77) Enhanced recovery approved EPA-86. SWD approved EPA-88.
Tyler	11	0	17	
BILLS COULEE				
Kootenai	0	3	0	Field without restrictions except that no well may be drilled closer than 330' from the exterior boundary of the field. (Order 22-80)
Dakota	0	1	0	
Moulton	0	2	0	
Sunburst	0	1	0	
Madison	0	1	0	
BLACK BUTTE				
Eagle	0	1	1	320-acre spacing units consisting of either the N/2 and S/2 or E/2 and W/2 of the section with well location to be no closer than 990' from a section line nor closer than 660' to the interior boundary. (Order 134-80)
BLACK COULEE				
Eagle	0	8	2	320-acre spacing units; well to be located no closer than 990' from unit boundary. (Order 6-73) Well location to be no closer than 660' to eastern boundary of Black Coulee Field. (Order 37-79) Field extension. (Order 71-79)
BLACK DIAMOND				
Nisku	2	0	0	320-acre spacing units; well location no closer than 660' from unit boundary. (Orders 147-81 and 51-86) Field enlarged. (Order 15-87)
BLACKFOOT				
Cut Bank-Madison	8	0	1	One well only per 40-acre spacing unit; 300' tolerance from center of spacing unit. Dual completion in Cut Bank and Madison with administrative approval. (Order 3-57) Waterflood started November 1976. (Order 34-76) Enhanced recovery approved EPA-88.
Nisku	1	0	0	
BLACKFOOT, EAST				
Cut Bank	0	0	2	Statewide.
BLACKFOOT SHALLOW GAS				
Sunburst-Dakota	0	9	0	640-acre spacing units; one well per section per producing horizon above the Kootenai with location to be no closer than 990' to unit boundaries. (Order 121-80)
BLACKJACK				
Blackleaf	0	2	0	One gas well per 160 acres, no closer than 660' from boundary of each unit. (Order 3-69) Statewide spacing. Order 3-67 amended to include Blackleaf in spacing and field rules for gas. (Order 4-74). Blackleaf gas pooled. (Order 3-75)
Bow Island	0	1	0	
Second White Specks	0	1	0	
Sunburst	0	11	0	
BLACKLEAF UNIT				
Sun River	0	2	3	Well spacing requirements set forth in 82-11-201 MCA and Board Rule 36.22.702 are suspended provided no well drilled to be closer than 990' from unit boundary. (Order 47-81). Two 280-acre spacing units. (Order 25-85)
BLOOMFIELD				
Dawson Bay	2	0	0	320-acre spacing units consisting of two contiguous governmental quarter sections which need not be in the same section; wells located no closer than 660' spacing unit boundaries. (Order 38-83) Dawson Bay formation added and commingling of Dawson Bay, Interlake, and Red River formations authorized. (Order 16-84) Enlarged. (Order 32-84)
Red River-Interlake	4	0	0	
BLOOMFIELD, EAST				
Red River	1	0	0	Statewide.
BLUE MOUNTAIN				
Red River	1	0	0	Statewide.

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
BORDER				
Cut Bank	15	0	4	Oil: Unitized into New and Old Border fields. Unitized 6-1-73. (Orders 8-73, 9-73)
Moulton	0	1	0	Gas: 330' from boundary of legal subdivision. 2,400' between wells in same formation on same lease. 75' topographic tolerance. (Order 7-54) Waterflood approved. (Orders 8-73, 9-73, 28-73)
Sunburst	0	1	0	
BOWDOIN & AREA				
Montana & Colorado Shale	0	575	39	One well per quarter section not less than 1,000' from lease boundary or less than 2,000' from any gas well in same horizon. (Order 29-55) Unitized 1958. Delineated: (Order 3-72) One additional well in each 640-acre spacing unit no closer than 990' to spacing unit boundary in Whitewater and Ashfield Units. (Order 41-82) Produced water injected into Phillips Sand-Ashfield unit. (Order 10- A-77)
BOWES				
Eagle	0	37	6	660' from boundary of legal subdivision. 1,320' from other wells in same formation. 75' topographic tolerance. (Order 23-54) Order 23-54 amended by establishing 160-acre Eagle spacing units in Sec. 5, 6, 7, 8, 17, 18 31N-19E. (Order 44-75) 330' from lease or property line, 990' between wells in the same formation. (Order 13-54) Vacuum pumps authorized for Sawtooth formation wells. (Order 74-83)
Sawtooth	57	0	39	Pilot waterflood initiated in 1961 and expanded to fieldwide waterflood in 1965. (Order 6-61) Water from Madison.
BOX CANYON				
Red River	2	0	0	Statewide.
BRADLEY				
Dakota	0	1	0	One well per formation per section for production of gas from all horizons above the top of the Kootenai formation. (Order 91-84)
Madison	1	0	0	
Sunburst	0	0	2	
BRADY				
Morrison	6	0	5	10-acre spacing units with 75' topographic tolerance from center of spacing unit. (Orders 34-62, 55-62) Field enlargement. Operators may commingle production from Burwash and Sunburst formations in Section 16. (Order 86-81)
Sunburst	9	0	3	Produced water disposed into Sunburst formation. (Order 62-A-84)
Burwash	2	0	1	
BREED CREEK				
Tyler	11	0	3	Statewide.
BROADVIEW				
Frontier	0	1	0	Single 640-acre spacing unit comprised of Sec. 35, T5N R22E. (Order 8-86)
BRORSON				
Madison	11	0	0	One well per 160-acre unit, no closer than 660' from unit boundary (Mission Canyon and Red River). (Order 5-69) Field enlargement. (Order 25-82) Gas to Brorson Field Plant.
Red River	3	0	0	Produced water injected into Dakota formation. (Order 129-A-81) SWD approved EPA-86.
BRORSON, SOUTH				
Madison	1	0	0	One well per 160-acre unit, no closer than 660' from unit boundary. (Order 26-68) Gas to Brorson Field Plant. Reduced Field Area. (Order 26-77)
Red River	3	0	0	
BROWN'S COULEE, EAST				
Eagle	0	2	1	Statewide.
Judith River	0	1	0	
BRUSH LAKE				
Red River	5	0	0	320-acre spacing unit with initial nine spacing units described in Order 15-71 corrected.
BUFFALO FLAT				
Bow Island	0	6	1	Statewide.
Duperow	0	0	1	
BUFFALO LAKE				
Madison	0	0	1	Statewide.
Sawtooth	0	0	1	

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
BULLWACKER				
Eagle	0	43	0	One well per 320-acre spacing unit with well location no closer than 660' from unit boundary and 990' from field boundary. (Order 26-74) Field enlarged. (Order 63-85)
Judith River	0	2	0	
Virgelle	0	1	0	
BURGET, EAST				
Madison	3	0	0	Statewide.
Red River	1	0	0	
BURNS CREEK				
Red River	1	0	0	Statewide.
BURNS CREEK, SOUTH				
Red River	0	0	1	320-acre spacing units; well location to be no closer than 660' from unit boundary. (Order 2-82)
CABIN CREEK				
Madison	4	0	13	Spacing waived and General Rules for (Deviation), (Commingling), and (Dual Completion) are suspended until present Unit Agreement becomes inoperative. (Order 36-62) Many wells produce from both Interlake and Red River by dual completions. Gas through extraction plant. Field boundaries amended and spacing units designated. (Order 118-84)
Silurian-Ordovician	88	0	4	
				Waterflood of Siluro-Ordovician (Orders 5-59, 15-60, and 30-63). Produced water injected into the Mission Canyon (Order 60-62). SWD approved EPA-84, 85, 88. Enhanced Recovery approved EPA-87, 88.
CAMP CREEK				
Eagle	0	1	0	Statewide.
CANADIAN COULEE & AREA				
Sawtooth	0	1	0	320-acre spacing units with well location no closer than 660' from unit boundary, and 990' from field exterior boundaries. (Order 18-76)
Firemoon	1	0	0	
CANADIAN COULEE, NORTH				
Sawtooth	0	1	0	640-acre spacing units. Location to be no closer than 1,650' to section line. (Order 15-74)
CANAL				
Madison	4	0	0	320-acre Red River spacing units consisting of E 1/2 and W 1/2 of governmental section. (Order 34-70)
Red River	1	0	0	
				160-acre Madison spacing units. Wells located no closer than 660' to unit boundary with 150' topographic tolerance. (Order 58-85)
CANNON BALL				
Red River	1	0	0	Statewide.
CARLYLE				
Red River	1	0	0	320-acre spacing units; to consist of either the N/2 and S/2 or E/2 and W/2 of section or lots corresponding thereto. Well location to be no closer than 660' to unit boundary nor closer than 1,650' to any well drilling or producing from the same pool. (Order 39-79) E 1/2 of 18-11N-61E designated as a spacing unit for Nisku formation with permission to commingle production with Red River. (Order 29-87)
Nisku	1	0	0	
				Produced water disposed into Dakota formation. (Order 126-A-81)
CAT CREEK, EAST DOME				
Ellis	12	0	3	220' from lease or property line, 440' from every other well in same formation. (Order 17-55) Three separate producing areas, East, Mosby, and West Domes. Field enlargement upper and lower Brindley wells in S1 T15N R28E are to be no closer than 350' from other Morrison wells in said section. (Order 101-82)
				Three Kootenai, two Ellis, and one Amsden waterflood in progress. Orders 17-56, 18-59, 13-62, 8-68, 38-70, 11-71) Water from Third Cat Creek sand. Waterflood modified. (Order 29-74)
CAT CREEK, MOSBY DOME				
Amsden	0	0	2	
Cat Creek 2 & 3	9	0	0	
Ellis	8	0	0	
Rierdon	1	0	0	

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
CAT CREEK, WEST DOME				
Cat Creek 1 & 2	32	0	5	
Ellis	1	0	0	
Morrison	3	0	0	
Mowry	2	0	0	
CATTAILS				
Ratcliffe	2	0	0	160-acre spacing units; wells no closer than 660' to unit boundaries. (Order 31-88)
CEDAR CREEK				
Eagle	0	87	3	Order 33-54, original field rules, vacated by Order 32-86. 320-acre spacing units, wells in center of NW 1/4 and SE 1/4 of each section with 200' topographic tolerance. (Order 1-61) De-lineation amendments. (Order 23-76 and 32-86)
CHAIN LAKES				
Eagle	0	1	1	Statewide.
CHARLIE CREEK				
Nisku	1	0	0	320-acre spacing units, either east-west or north-south at option of operator, located no closer than 660' from spacing unit boundary and no closer than 1,650' from another producing well. Spacing units may not cross section lines. (Order 66-76)
Red River	1	0	0	
CHARLIE CREEK, EAST				
Red River	2	0	1	Two 160-acre spacing units for Duperow formation. (Order 47-87) Two 160-acre spacing units for Red River formation. (Order 38-88)
Duperow	1	0	0	
CHARLIE CREEK, NORTH				
Bakken	1	0	0	Single spacing unit. (Order 37-82) Statewide.
Madison	1	0	0	
Red River	0	1	0	
CHELSEA CREEK				
Nisku	1	0	0	Statewide.
CHINOOK, EAST				
Eagle	0	0	3	Statewide.
CHIP CREEK				
Eagle	0	0	3	160-acre spacing units. Location no closer than 660' from spacing unit boundary. (Order 89-76)
CLARKS FORK				
Greybull	0	1	0	330' from quarter-quarter section line. 1,320' between wells with 75' topographic tolerance. (Order 17-54)
CLARKS FORK, SOUTH				
Greybull	0	0	1	160-acre spacing; location no closer than 330' from quarter section line or 1,320' from any other well.
CLEAR LAKE				
Madison	5	0	0	Statewide. Produced water disposed into Dakota, Muddy, Lakota, and Swift formation. (Orders 41-A-80, 60-A-80, 91-A-80, 116-A-81, 123-A- 81) SWD approved EPA-87.
Nisku	1	0	0	
Red River	8	0	0	
CLEAR LAKE, SOUTH				
Red River	1	0	0	Statewide.
COAL COULEE				
Eagle	0	1	2	One well per governmental section, to be located no closer than 990' from section line and only one well permitted per formation. (Order 25-78) Amendment to (Order 25-78) provides 320-acre spacing units within certain sections to be designated by the operator. Well to be located no closer than 990' to unit boundary. (Order 36-79)
COAL RIDGE				
Mission Canyon	0	0	1	Statewide. Produced water injected into the Dakota formation. (Order 81-A-79)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
COLORED CANYON				
Red River	3	0	0	Statewide. Single spacing unit comprised of N 1/2 Sec 7, T32N, R57E. (Order 28-84)
Nisku	1	0	0	
COLORED CANYON-NISKU				
Nisku	1	0	0	Single spacing unit comprised of S1/2 NW1/4 and N1/2 SW1/4 Sec 8 T32N R57E (Order 86-85).
COMERTOWN				
Nisku	4	0	0	320-acre spacing units; permitted well to be no closer than 660' to unit boundary. (Order 35-80) Field enlargement. (Orders 9-81 and 150-81)
Ratcliffe	3	0	0	
Red River	4	0	1	Produced water injected into the Dakota formation. (Order 107-A-82)
COMERTOWN, SOUTH				
Nisku	1	0	0	320-acre spacing units consisting of N1/2 and S1/2 of Sec 21 and W1/2 of Sec 22, T36N, R57E, wells located no closer than 660' to unit boundary. (Order 96-84) Enlarged. (Order 20-85)
Red River	1	0	0	
CONRAD, SOUTH				
Dakota	3	0	0	10-acre spacing units. Wells in center of each unit with 75' topographic tolerance. (Orders 34-62, 31-63)
Sunburst	5	0	0	
COTTONWOOD				
Red River	1	0	0	Single spacing unit. (Order 85-84)
COW CREEK				
Charles	0	0	1	80-acre spacing units, direction at option of operator but wells to be in SW 1/4 and NE 1/4 of each quarter section. (Order 11-69)
COW CREEK, EAST				
Kibbey	10	0	0	40-acre spacing units consisting of quarter-quarter section with permitted well to be at center with 150' topographic tolerance. (Order 35-74) Produced water disposed into Dakota formation. (Order 30-A-75 and 61-A-76)
CRANE				
Devonian	3	1	0	320-acre spacing units consisting of one half of a governmental section with well location to be no closer than 660' from unit boundary and no closer than 1,650' to any well drilling or producing from the same pool. (Order 40-79) SWD approved EPA-87, 88.
Silurian-Ordovician	3	0	0	
CROCKER SPRINGS, EAST				
Mississippian	1	0	0	Statewide. (Order 68-82 which established 80-acre spacing units was vacated by Order 37-87.)
CROOKED CREEK				
Dakota	1	0	2	Statewide.
CUPTON				
Red River	7	0	2	160-acre quarter section spacing units. Location no closer than 660' from spacing unit boundary. (Order 4-72) Produced water disposed into Red River formation. (Order 1-A-80) SWD approved EPA-85, 86.
CUPTON AREA				
Red River	2	0	0	Single spacing unit. (Order 14-85)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
CUT BANK				
Blackleaf	0	2	0	(Kootenai formation includes Moulton, Sunburst, and Cut Bank sands.) Oil: 330' from legal subdivision line, 650' between wells in same formation 5-spot on 40-acre tract permitted. 75' topographic tolerance. (Order 10-54) Gas: 330' from legal subdivision, 2,400' between wells in same formation. 75' topographic tolerance. (Order 10-54) Sec. 20, 29, and 32 of T36N, R4W spaced 320-acres (N 1/2 and S 1/2). (Order 26-70)
Bow Island	0	17	0	
Cut Bank	524	189	444	
Cut Bank-Madison	2	0	0	
Kootenai	3	1	1	
Madison	47	1	17	
Moulton	42	1	39	
Sunburst	4	6	4	
Swift	0	1	0	
Dakota	0	1	0	
There are 18 waterfloods in progress. Water from Eagle and Madison, or produced. Produced water disposed into Madison formation. (Orders 51-65, 52-65, 22-A-74, 80-A-76, 55-A-77, 60-A-80, 91-A-80, 123-A-81, 39-A-82, 20-A-84) SCCBSU enhanced recovery approved EPA-84, 85, 87 and Order 88-85. SWD approved EPA-86. Two Medicine enhanced recovery approved EPA-88.				
DAGMAR				
Red River	2	0	1	Statewide.
DAGMAR, NORTH				
Red River	1	0	0	320-acre spacing units; well location no closer than 660' from unit boundary. (Order 6-81) Produced water injected into Dakota formation. (Order 124-A-81) SWD approved EPA 86, 88.
DEADMANS COULEE				
Nisku	0	0	4	Statewide. Produced water injected into Judith River formation. (Order 132-A-81) SWD approved EPA 86.
DEAN DOME				
Greybull	1	0	6	Statewide. Oil ring below gas cap.
DEER CREEK				
Interlake/Red River	1	0	5	80-acre spacing units consisting of any two adjacent quarter-quarter sections. Well location in NE1/4 and SW 1/4 of each quarter section with 75' topographic tolerance. (Orders 23-55 and 14-59) Well location amendment. (Order 10-86) Commingling of production permitted upon approval of Board Petroleum Engineer. (Order 18-63) Excess produced water is disposed into Dakota and Lakota, Morrison and Swift formations. (Orders 6-56, 3-58 and 53-A-83)
DELPHIA				
Amsden	2	0	0	Statewide.
DEVILS BASIN				
Amsden	0	0	2	10-acre spacing units; well location to be in the center of each spacing unit with a 75' tolerance permitted for topographic or geologic reasons. (Order 114-80)
Heath	2	0	7	
Tyler	1	0	0	
Produced water disposed into Heath formation. (Order 59-A-84)				
DEVILS POCKET				
Heath	2	0	0	40-acre spacing units; wells no closer than 165' to spacing unit boundary. (Order 34-85)
DEVON				
Bow Island	0	26	2	160-acre spacing units for production of gas from all formations from surface to top of Kootenai formation; wells located no closer than 330' to any quarter section line and 660' to exterior boundaries of field, excepting existing wells. (Order 32-83) Field enlarged and amended to provide 320-acre spacing units for Bow Island formation; wells located no closer than 660' to interior spacing unit line and 990' to section lines. (Order 50-86) Field enlargement. (Order 5-88)
DEVON, EAST				
Bow Island	0	2	1	320-acre spacing units consisting of any two contiguous quarter sections; wells located no closer than 660' to spacing unit boundaries. (Order 42-86) Field enlarged. (Order 26-87)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
DEVON, SOUTH UNIT				
Bow Island	0	1	0	Drilled on statewide spacing. Unitized for primary production. (Order 28-71, corrected) 320-acre spacing units; wells located no closer than 660' to unit boundaries. (Order 24-84) Field enlarged. (Order 11-87)
DIAMOND POINT				
Red River	2	0	0	320-acre spacing unit allowing two wells to produce from the Red River or from commercial production at any depth shallower. (Order 20-80) SWD approved EPA-85.
DIVIDE				
Madison	10	0	0	Statewide. Produced water disposed into Dakota formation. (Order 42-A-80, 130-A-81)
Red River	3	0	0	
DOOLEY				
Ratcliffe	3	0	0	Statewide.
DRY CREEK				
Frontier	1	15	0	Statewide. Field redelineated. (Order 8-70) Six additional gas storage wells, west end of structure.
Greybull	0	2	0	
Judith River	0	2	1	
Virgelle/Eagle	0	5	0	
DRY CREEK, MIDDLE				
Frontier	1	2	0	320-acre spacing units consisting of two adjacent governmental quarter sections lying north-south or east-west at operator's option with permitted well no closer than 660' from spacing boundary. (Order 25-75)
DRY CREEK, SHALLOW GAS				
Virgelle	0	1	0	Statewide
DRY CREEK, SOUTHWEST				
Frontier	1	0	0	320-acre spacing units consisting of E and W of Sec. 5, T7S R21E; wells located no closer than 990' to spacing unit boundaries. (Order 47-86)
DRY CREEK, WEST				
Greybull	0	0	1	160-acre spacing units; well location anywhere in spacing unit but no closer than 660' from unit boundary. (Order 43-78) Order 43-78 amended to include Frontier formation. (Order 65-82) Field enlargement. (Order 86-82)
DRY FORK				
Bow Island	0	6	1	Statewide
DUNKIRK				
Bow Island	0	4	2	Only one well may produce from each producing zone, formation, or horizon, but no closer than 990' from section lines. (Order 58-81) Field enlargements. (Orders 104-81 and 66-82)
Dakota	0	16	0	
Sunburst	0	1	0	
DUNKIRK, NORTH				
Bow Island	0	16	0	One well per governmental section per zone or horizon. Each producing well to be located anywhere within section but no closer than 990' from section line. (Order 25-77) Field enlargements. (Orders 64-78 and 157-81)
Dakota-Kootenai	0	1	0	
Swift	0	1	0	
DUTCH JOHN COULEE				
Sunburst	5	0	2	Statewide. Sunburst sand unitization and gas repressuring project approved. (Order 27-88)
DWYER				
Madison	9	0	7	160-acre spacing units; well location in center of SE 1/4 of spacing units with 175' topographic tolerance. (Orders 25-60, 29-61) Field reduction. (Order 30-85)
Duperow	1	0	0	Produced water disposed into Dakota formation. (Order 26-63) Waterflood. (Order 20-68) Enhanced recovery approved EPA-86.
DWYER-NISKU				
Nisku	1	0	0	Single 320-acre spacing unit. (Order 30-87)
DWYER RED RIVER & AREA				
Red River	5	0	0	Single spacing unit with 2 wells. (Order 97-83)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
EAGLE				
Duperow	1	0	0	Statewide.
Madison	18	0	3	
Red River/Interlake	2	0	0	
EAGLE SPRINGS				
Bow Island-Sunburst-Swift	0	5	5	One well per governmental section per zone, located anywhere but no closer than 990' from section line for all gas zones above the top of the Kootenai. (Order 4-78) Commingling of Swift and Sunburst permissible. (Order 19-79)
EAST GLACIER				
Green Horn	1	0	0	Statewide. 160-acre spacing units. (Order 41-81) Amended to enlarge field and designate 80-acre spacing units with permitted well to be located no closer than 330' to the exterior boundaries. (Order 112-81)
ELK BASIN				
Big Horn	0	0	1	Statewide spacing is waived within unit areas. (Order 10-61) Gas to Elk Basin gasoline plant.
Frontier	12	0	12	Frontier: Water injection. (Order 1-72) Embar-Tensleep pressure maintenance by crestal gas injection. Waterflood approved in 1966. (Order 5-66) Madison: Water injection. (Order 17-61) Enhanced recovery approved EPA-86.
Madison	15	0	14	
Embar-Tensleep	18	1	11	
ELK BASIN, NORTHWEST				
Frontier	2	0	9	Spacing waived within unitized portion except that bottom of hole be no closer than 330' from unit boundary and there be at least 1,320' surface distance between wells in same formation; 75' topographic tolerance. (Orders 43-63, 28-64) Gas to Elk Basin gasoline plant.
Madison	10	0	0	Frontier: Waterflood in progress. Embar-Tensleep: Waterflood. (Order 3-67, 6-74) Madison, produced water. Enhanced recovery approved EPA-88.
Tensleep	1	0	1	
ENID, NORTH				
Bakken	1	0	0	Spaced for one well field, NE 1/4 of Section 10 and NW 1/4 of Section 11, T23N, R54E. (Order 45-79)
Red River	2	0	1	
ETHRIDGE				
Swift	0	6	0	Statewide, except two wells. (Order 28-65)
ETHRIDGE, NORTH				
Swift	0	1	0	320-acre spacing units; well location to be no closer than 660' from unit boundaries. Section 2, T33N, R4W is a 640-acre spacing unit. (Order 98-81)
FAIRVIEW				
Duperow	0	0	1	160-acre spacing units. Well location anywhere in spacing unit but no closer than 660' from unit boundary. (Orders 48-65, 1-67, 43-67, 44-67, 38-84) Gas to Fairview plant. Field area reduced. (Order 119-84) Field enlarged. (Order 16-87)
Winnipegosis	1	0	0	
Madison	7	0	1	
Red River	11	0	2	Northwest part of field unitized for gas injection. Gas from Fairview and Brorson fields. (Order 11-70) Salt water disposal into Dakota. (Orders 9-A-71, 24-A-71)
FAIRVIEW, EAST				
Red River	1	0	1	320-acre spacing units; designated well in the N 1/2 of Section 28 may be located no closer than 660' from the unit boundary or 1,650' from any well producing from the same pool. (Order 76-81) SWD approved EPA-88.
Stonewall	1	0	0	
FAIRVIEW, WEST				
Madison	2	0	0	Statewide.
FERTILE PRAIRIE				
Red River	4	0	1	80-acre spacing units consisting of north-south rectangular units. Well location in NW 1/4 and SE 1/4 of quarter section with 75' topographic tolerance. (Orders 3-56, 7-62) Board Orders 3-56 and 7-62 amended to provide well locations for each 80-acre spacing unit to be the center of the SW or NE quarter quarter section of each quarter section with 75' tolerance for surface obstructions. (Order 65-80)
FIDDLER CREEK				
Greybull	0	0	2	Statewide.

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
FISHHOOK				
Madison	1	0	0	Statewide.
Red River	3	0	1	
FITZPATRICK LAKE				
Bow Island-Sunburst	0	9	2	One well per governmental section located no closer than 990' from section line for all gas zones above the top of the Kootenai. (Order 31-79) Field enlarged. (Order 113-84)
FLAT COULEE				
Blackleaf	0	1	0	Bow Island Gas: 330' from boundary of legal subdivision and 1,320' from other wells in same reservoir. (Order 16-55) Swift Oil: 40- acre spacing units. Well in center of spacing unit with 150' topographic tolerance. (Orders 16-62, 19-63) Dakota Gas: Statewide.
Bow Island	0	2	0	
Dakota	0	1	0	
Sawtooth	0	1	0	Waterflood unit and redelineation approved for Swift sandstone. (Orders 13-71, 17-A-71, 22-71)
Swift	22	3	0	
FLAT LAKE				
Madison	45	0	30	160-acre spacing units; well location in center of NE 1/4 of quarter section with 200' topographic tolerance. Wells no closer than 961' to North Dakota state line and no closer than 1,600' to Canadian line. (Orders 10-65, amended; 43-65, 23-66, 33-66)
Nisku	1	0	0	Excess salt water disposed into Muddy, Dakota, or Lakota formations (Orders 39-64, 39-66, 125-A-81) and into Ratcliffe formation (Order 122-A-81). Unit operation for eastern part of field. (Order 7-71) Unit operation for western part of field. (Order 32-74)
FLAT LAKE, EAST				
Madison	1	0	0	Single 160-acre spacing unit. (Order 103-84) SWD approved EPA-88.
FLAT LAKE, SOUTH				
Ratcliffe	4	0	2	160-acre spacing units established by (Order 2-67) then modified to provide that the permitted well may be located anywhere within the unit but no closer than 660' to any unit boundary. (Order 49-80) Excess salt water disposed into Muddy, Dakota, or Lakota. (Order 19- 67)
FLAXVILLE				
Mission Canyon	0	0	2	160-acre spacing units; permitted well to be no closer than 660' from the exterior boundaries of the unit. (Order 105-82) Order 105-82 amended to provide 150' tolerance for topographic reasons. (Order 124-82) SWD approved EPA-85.
FORT CONRAD				
Bow Island	0	16	0	640-acre spacing units; well location to be no closer than 990' from the section line. (Order 19-81) Field enlargement. (Order 118-82)
FORT GILBERT				
Duperow	1	0	0	160-acre spacing units; well location no closer than 660' from unit boundary with 150' topographic tolerance. (Order 94-81)
Madison	8	0	5	
Red River	2	0	0	Excess produced associated gas reinjected into Duperow formation.(Order 78-81)
FOUR MILE CREEK				
Red River	1	0	0	320-acre spacing units. (Order 43-75) Field boundary reduction. (Order 10-83)
FOUR MILE CREEK, WEST				
Red River	1	0	1	Statewide.
FOX CREEK				
Stonewall	1	0	0	Statewide.
FOX CREEK, NORTH				
Madison	1	0	1	160-acre spacing units for Madison formation; wells located no closer than 660' to the unit boundary with 150' topographic tolerance. (Order 13-84)
FRANNIE				
Tensleep	1	0	1	10-acre spacing units; well location in center of each unit with 100' topographic tolerance. (Order 35-63) Unitized for waterflood of Phosphoria-Tensleep formations using produced fluids. (Order 21-70) EOR approved. (Order 62-85)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
FRED & GEORGE CREEK				
Bow Island	0	3	0	Sunburst Oil: 40-acre spacing units; well location in center of unit with 250' topographic tolerance. (Orders 29-63, 1-65, amended by Order 48-77) Sunburst Gas: same as Arch Apex. (Order 4-60) Statewide for other formations. Sunburst waterflood initiated July 1970, using water from Madison (Order 13-70) and Eagle. (Order 27-71) (Order 40-80)
Madison	1	0	0	
Sunburst	24	0	23	
Swift/Blackleaf	4	2	3	
FRESNO & AREA				
Eagle	0	5	2	640-acre spacing units; wells located no closer than 990' from unit boundary. One well may be drilled within each spacing unit for each producing horizon within the spacing unit. (Order 14-76) Field enlargement and modification of field rules within certain areas. (Order 52-80)
FROG COULEE				
Red River	1	0	0	320-acre spacing units; wells to be located no closer than 660' from the unit boundary. (Order 55-79)
FROID, SOUTH				
Red River	1	0	0	Statewide.
GAGE				
Amsden	3	0	0	40-acre spacing units; well location to be in center of each unit with a permitted tolerance of 150' for topographical or geological reasons. (Order 120-80) Field enlargement. (Order 44-81)
GALATA				
Bow Island	0	6	2	One well per governmental section located no closer than 990' to section lines. (Order 21-84) Two wells from same formation per section no closer than 1,320' to each other. (Order 28-84) Field enlarged. (Orders 41-85 and 76-85)
GAS CITY				
Silurian-Ordovician	10	0	6	80-acre spacing units consisting of E 1/2 and W 1/2 of quarter sections; well location in NW 1/4 and SE 1/4 of quarter section; 150' topographic tolerance. Spacing waived and statewide rules for (Deviation), (Commingling), and (Dual Completion) are waived in unitized portion of field. (Order 29-62) Excess produced water disposed into Judith River formation. (Orders 32-61, 20-64) Waterflood using produced water and Madison water. (Order 16-69) Produced water disposed into Charles "B" formation. (Order 90-A-79)
GIRARD				
Bakken	1	0	0	Statewide.
Red River	1	0	0	
GLENDDIVE				
Silurian-Ordovician	14	1	6	80-acre spacing units consisting of any two adjacent quarter-quarter sections; wells located in center of NE 1/4 and SW 1/4 of each quarter section with 75' topographic tolerance. (Orders 27-55, 19-62, 58-62, 20-66) 80-acre spacing units as set forth by Order 95-84. Commingling of Red River and Madison formations. (Order 95-84) Excess produced water disposed into Swift, Dakota, and Judith River formations. (Orders 16-56, 16-63, 40-A-70, 7-A-72, 8-A-82) SWD approved EPA-86, 88.
GOLD BUTTE				
Bow Island	0	1	0	640-acre spacing, well location any quarter-quarter section cornering on center of section. (Order 26-59) Amended field boundary. (Order 43-77)
GOLDEN DOME				
Frontier	1	6	0	160-acre spacing; 660' from spacing unit boundary. (Order 15-72) Single spacing unit for Greybull formation. (Order 17-82) Field enlargement and inclusion of Frontier and Greybull formations. (Order 135-82)
Greybull	0	3	0	

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
GOOSE LAKE				
Ratcliffe	20	1	17	160-acre spacing units for Ratcliffe formation. (Order 42-63) Field enlarged. (Orders 40-66, 47-67, 16-68) Refer to said orders for authorized well locations. Field size reduced. (Order 29-77) Single spacing unit for Red River. (Order 1-82)
Red River	1	0	0	
				North Goose Lake Unit waterflood. (Order 17-72) Unit production curtailment. (Order 45-77) Excess produced water disposed into Mission Canyon and Dakota formations. (Orders 12-64, 14-66, 12-68) Produced water disposed into Ratcliffe formation (Order 138-A-80) Produced water disposed into Dakota formation. (Order 117-A-81) Enhanced recovery approved EPA-86. SWD approved EPA-87.
GOOSE LAKE, SOUTHEAST				
Ratcliffe	1	0	0	Statewide.
GOOSE LAKE, WEST				
Red River	2	0	0	Statewide.
GOSSETT				
Madison	1	0	2	Statewide.
Red River	1	0	0	
Stoney Mountain	1	0	0	
GRABEN COULEE				
Cut Bank	72	0	10	40-acre spacing units; well location no closer than 330' from legal subdivision. (Cut Bank and Madison) Oil: 330' from boundary of legal subdivision and 650' from any other well in same reservoir and on same lease. 75' topographic tolerance. (Order 73-62)
Madison	1	0	1	
Sunburst	11	0	3	
				Excess produced water disposed into Cut Bank formation. (Order 45-A- 75 and 63-A-84) Waterflood of Cut Bank sands. (Order 61-83) SWD approved EPA-86, 87, 88.
GRANDVIEW				
Bow Island	0	5	1	320-acre spacing units aligned in a north-south direction; well location no closer than 660' to a spacing unit boundary. (Order 49- 67) Dual completion with Bow Island.
Sawtooth	0	1	0	
GRANDVIEW, EAST				
Swift	5	0	1	Statewide.
GREEN COULEE				
Red River	1	0	0	160-acre spacing units for Ratcliffe formation. Well location to be no closer than 660' to unit boundaries with 150' tolerance allowed for topographic or geologic reasons. 320-acre spacing units for the Red River formation with well location to be no closer than 660' to the unit boundary nor closer than 1,650' from any well producing from the Red River. (Order 56-81)
GUMBO RIDGE				
Tyler	2	0	2	Statewide. Third Cat Creek water for waterflood. (Order 54-79)
GUNSIGHT				
Madison	3	0	0	Statewide.
GYPSY BASIN				
Sawtooth, Sunburst, Swift	18	3	29	330' from lease lines and 660' between wells in same formation. Only two wells per quarter-quarter section. (Order 7-66)
Madison, Nisku				(Sawtooth-Madison) Oil: 40-acre spacing units; wells no closer than 330' from lease line. (Order 7-66) (Sawtooth-Madison) Gas: 160- acre spacing units; well locations in center of any quarter-quarter section in each 160-acre unit, 2,340' between gas wells. 150' topographic tolerance. (Order 13-59) Injection of excessive gas produced with oil into Sunburst gas cap. (Order 6-64)
HAMMOND				
Muddy	0	0	9	320-acre spacing units; each unit shall consist of a regular half of a governmental section with well location to be no closer than 660' to a unit boundary nor closer than 990' to the exterior boundaries of the field. (Order 97-80)
HARDIN				
Frontier	0	17	6	Statewide.

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
HARDPAN				
Bow Island	0	12	1	Spacing one well per section. Well location no closer than 990' from the section boundary. (Order 145-81) Field enlargement. (Order 131-82)
Swift	1	0	0	
HARDSCRABBLE CREEK				
Red River	1	0	0	Statewide.
HAVRE				
Eagle	0	3	2	Single spacing unit for production of gas.
HAWK CREEK				
Amsden	1	0	0	Statewide.
HAY CREEK				
Interlake	1	0	0	Statewide. 320-acre spacing, any two adjacent quarter sections, direction to be determined by operator. Location no closer than 660' from unit boundary. (Orders 15-69, 27-73) Gas to Brorson plant. Water disposal into Red River. (Order 20-A-70) Produced water disposed into Dakota formation. (Order 90-A-80, 129-A-81)
Mission Canyon	2	0	0	
Red River	1	0	0	
HAYSTACK BUTTE				
Bow Island	0	7	1	640-acre spacing units; one well per each producing horizon above Kootenai. Location no closer than 990' from spacing unit boundary. (Order 85-76) Amended field boundary. (Order 37-77)
HAYSTACK BUTTE, WEST				
Bow Island	0	3	0	320-acre spacing units; wells located no closer than 660' to the unit boundaries; commingling of production authorized as specified. (Order 6-88)
HIAWATHA				
Tyler	4	0	0	Statewide.
HIGH FIVE				
Stensvad	7	0	2	Statewide. Water disposed into Dakota and Stensvad formations. (Orders 33-A-77, 70-A-78) Unitized & Polymer-Waterflood authorized. (Order 110-80) Enhanced recovery approved EPA-88.
Tyler	5	0	0	
HIGHLINE				
Eagle	0	1	0	Single 640-acre spacing unit. (Order 35-88)
HIGHVIEW				
Madison	11	1	9	160-acre spacing units, located no closer than 660' from spacing unit boundary. 150' topographic tolerance. (Order 84-76) Orders 32-76, 84-76 and 63-82 are amended to provide as follows: 1. Permitted wells to the Moulton, Sunburst, Morrison, and Swift formations shall be no closer than 330' from the lease line nor closer than 660' to a permitted well in the same formation with only two such wells per quarter quarter section with a 150' topographic tolerance. 2. Madison: (Gas) 160-acre spacing units with well location to be no closer than 660' from quarter section lines. 3. Madison: (Oil) 40- acre spacing units with permitted location to be no closer than 330' from the lease line with a 150' topographic tolerance. 4. Sawtooth: (Oil and Gas) 40-acre spacing units with permitted location to be no closer than 330' from the lease line with a 150' topographic tolerance. (Order 136-82)
Devonian	1	0	0	
Swift	0	0	1	
HONKER				
Red River	1	0	0	320-acre specified spacing units; permitted well not to be closer than 660' from the unit boundary. (Order 105-80)
HORSE CREEK				
Swift	1	0	0	Statewide.
HOWARD COULEE				
Tyler	1	0	0	Statewide. Produced water injected into the Piper formation. (Order 69-A-78)
INJUN CREEK				
Tyler	1	0	0	Statewide.
Stensvad	1	0	0	

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
INTAKE II & AREA				
Madison	1	0	1	320-acre spacing units; permitted well to be located no closer than 660' from the unit boundary. (Order 99-81) Produced water disposed into Dakota formation. (Order 60-A-84) SWD approved EPA-85.
Red River	3	0	0	
IVANHOE				
Amsden	0	0	1	40-acre spacing unit for production from any one common formation; well location in center of unit with 200' topographic tolerance. (Order 7-60 and 13-56)
Morrison	1	0	0	
Tyler	4	0	2	Waterflood of Tyler B and C sands discontinued. Water disposal into Tyler A. (Order 8-A-78, 10-A-84)
JIM COULEE				
Tyler	15	0	0	Unitized. (Order 18-72) No well closer than 330' from unit boundary. Waterflood project approved in Tyler Sands. (Order 18-72)
JIM COULEE, NORTH				
Tyler-Stensvad	1	0	1	Statewide.
KATY LAKE				
Red River	1	0	1	Statewide.
KATY LAKE, NORTH				
Madison	5	0	0	Statewide except for single 320-acre Red River spacing unit (Order 88-84) and single 160-acre Mission Canyon spacing unit. (Order 89-84)
Nesson	1	0	0	
Red River	5	0	0	Produced water disposed into the Dakota formation. (Order 15-A-82)
KEG COULEE				
Stensvad	1	0	2	40-acre spacing in southwest portion of field except that spacing is waived in unitized portion. (Orders 3-64, 4-64, 23-64) 80-acre spacing in remainder of field with variable pattern. (Orders 11-60, 28-62) 40-acre spacing: W 1/2 E 1/2 and W 1/2 Sec. 35-11N-30E; NW 1/4 Sec. 35-11N-30E; NW 1/4 Sec. 2-10N-30E. (Order 23-72) Topographic tolerance varies from 100' to 250'. (Order 11-60, 4-64, 23-64) Buffer zone waived. (Order 16-65) Field reduction. (Order 2-76) Orders 11-60, 4-64, and 2-76 amended by Order 58-76. Three waterflood units. (Orders 3-64, 28-66, 10-69, 14-69) Madison water injected.
Tyler	8	0	10	
KEG COULEE, NORTH				
Tyler	1	0	1	40-acre spacing units; well location in center of spacing unit with 150' topographic tolerance. (Order 46-64) Buffer zone waived. (Order 16-65) Field area amended. (Order 59-76)
KEITH AREA				
Bow Island	0	1	0	Statewide.
Sawtooth	0	1	0	
White Specks	0	2	1	
KEITH, EAST				
Bow Island	0	6	0	Statewide, except unitized portions spaced by Order 22-62. Pooling. (Order 19-66)
Niobrara	0	1	0	
Sawtooth	0	2	0	
Second White Specks	0	11	1	
KELLEY				
Tyler	3	0	1	Statewide. 250' topographic tolerance. (Order 15-67) Waterflood using Third Cat Creek water. (Orders 8-69, 51-76)
KEVIN, EAST GAS FIELD				
Sunburst	0	2	0	320-acre spacing units consisting of E 1/2 and W 1/2 of 6-34N-1E, all horizons above base of Rierdon formation, commingling approved. (Order 23-85) Field enlarged. (Orders 29-86 and 10-87)
KEVIN, EAST NISKU OIL				
Nisku	12	1	0	80-acre spacing units consisting of E 1/2 or W 1/2 of governmental quarter section; wells located in center of SW 1/4 or NE 1/4 of each quarter section with 200' geologic or topographic tolerance. (Order 46-84) Field enlarged. (Order 9-86) Single spacing unit authorized to produce gas from the gas cap. (Order 24-88)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
KEVIN-SOUTHWEST				
Bow Island-Dakota				
Sunburst-Swift	0	28	1	320-acre one-half section spacing units lying north-south or east-west at operator's option. Location to be no closer than 660' from unit boundary for Sunburst-Swift formations and all formations above the top of the Kootenai. (Orders 26-78, 47-78, 48-78) Field enlargement. (Orders 96-79, 47-80, 163-81)
KEVIN SUNBURST				
Burwash	9	0	0	
Cut Bank & Madison	1028	29	504	Oil: 9 Wells per 40-acre tract; only 3 wells on any side of tract with set back at least 220' from line. Single spacing unit. (Order 61-85) Gas: Well to be no closer than 330' from the boundaries of any legal subdivision line, nor less than 2,400' from every other drilling or producible well on the same lease or units. (Orders 8-54, 28-55) Field enlarged. (Order 54-87) 160-acre
Bow Island, Kootenai, Swift	131	98	50	Bow Island spacing units established. (Orders 2-88, 17-88, and 60-88)
Eagle	0	1	0	
Ellis	49	0	8	
Nisku	2	2	0	There are three waterfloods in operation using Madison water. (Orders 9-64, 17-64, 30-64, 36-65) Sunburst water disposed into Madison (Order 50-76 and 11-A-84). H2S, CO2 and produced water disposed into Madison. (Order 156-81) EPA-87. SWD approved EPA-84, 85, 86, 87, 88. Enhanced recovery approved EPA-88.
Sawtooth	1	1	0	
KEVIN SUNBURST, NISKU & AREA				
Swift	0	1	0	Gas: 640-acre spacing units; location no closer than 990' from spacing unit boundary. (Order 83-76) Oil: 80-acre spacing units; location no closer than 330' from spacing unit boundary. (Order 7-86)
KICKING HORSE				
Bow Island	0	11	0	
Sawtooth	0	1	0	320-acre spacing with location permitted no closer than 660' from unit boundary and 990' from field boundary. (Order 17-74) Board Order 17-74 is amended to include certain additional lands into field and provide that 320-acre spacing units may be either the N/2 & S/2 or E/2 & W/2 of section. (Order 53-80)
Sunburst	0	4	1	
KINCHELOE RANCH, WEST				
Tyler	5	0	0	Statewide. Enhanced recovery approved. EPA-88 and Order 46-88.
KINYON COULEE AREA				
Bow Island	0	3	0	Statewide.
KINYON COULEE, SOUTH				
Bow Island	0	0	1	Only one well permitted. Well location no closer than 990' from section line. (Order 31-81)
KIPPEN AREA, EAST				
Madison-Swift	0	1	0	
Sawtooth	0	0	1	Statewide.
LAIRD CREEK (LAIRD CREEK U)				
Swift	9	0	0	Statewide. Unitized and waterflood authorized in Swift for oil production. (Order 25-74) Commenced 2-25-77.
LAKE BASIN				
Claggett	0	3	0	
Eagle-Virgelle	0	15	5	160-acre spacing units to base of Virgelle; wells no closer than 660' from unit boundary and 990' from field boundary. Commingling permitted after administrative approval. (Order 9-74)
Frontier	0	1	0	Gas from Telegraph Creek pooled. (Order 29-75)
Telegraph Creek	0	3	0	
LAKE BASIN, NORTH				
Eagle	0	2	0	
Frontier	0	1	0	640-acre spacing units consisting of one section. Locations 990' from section line. (Order 3-74) 160-acre spacing units located no closer than 660' from quarter section lines within restricted sections. (Order 63-76)
LAMBERT				
Red River	4	0	0	320-acre spacing units consisting of the E 1/2 and W 1/2 of section. (Order 3-83). Statewide.
LAME STEER CREEK				
Red River	1	0	0	Single spacing unit. (Order 101-84)
LANDSLIDE BUTTE				
Madison	11	0	5	
Sun River	2	0	1	Statewide. Reinject gas into Madison formation. (Order 84-84) SWD approved EPA-86.

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
LAREDO Eagle	0	0	2	320-acre spacing with unit consisting of one-half section lying north-south or east-west at operator's option after administrative approval. Well no closer than 990' from unit boundary. (Order 8-74)
LEARY Muddy	1	0	2	40-acre spacing units; wells located no closer than 330' to spacing unit boundary with 75' topographic tolerance. (Order 115-84 which amended original 80-acre spacing established by Orders 12-69, 19-70, and 68-76)
LEDGER Bow Island Sawtooth	0 0	56 0	5 1	640-acre spacing; one well per section per sand to be located no closer than 990' from section line. Permissible to commingle two or more sands, subject to administrative approval by the Petroleum Engineer. (Order 53-77) Field enlargement and amendment to allow two wells per sand per section. (Order 1-87)
LEROY Eagle	0	27	12	320-acre spacing with unit consisting of one-half section lying north-south or east-west at operator's option after administrative approval. Wells no closer than 660' from unit boundary and 990' from field boundary. (Order 19-75) Board Order 19-75 amended that a tolerance of 330' for permitted well be allowed for topographic reasons. (Order 72-80) Field enlargement. (Order 31-87)
LISCOM CREEK Shannon	0	8	0	Spacing, one well per 640 acres, with location no closer than 990' from section boundary. (Order 20-72)
LITTLE BASIN Frontier	0	3	0	640-acre spacing units; one well per section located no closer than 990' from spacing unit boundary. (Order 27-86)
LITTLE BEAVER Silurian-Ordovician	37	1	5	Spacing waived and General Rules for (Deviation), (Commingling), and (Dual Completion) are suspended until present Unit Agreement becomes inoperative. (Order 41-62) Waterflood of the Red River was commenced in August 1967. (Order 3-66) Minnelusa water. Enhanced recovery approved EPA-88.
LITTLE BEAVER, EAST Silurian-Ordovician	9	0	3	Same as for Little Beaver. (Order 42-62) Waterflood of the Red River was commenced in April 1965. (Order 33-64)
LITTLE CREEK Eagle-Virgelle	0	3	1	Statewide.
LITTLE PHANTOM Sunburst	1	0	0	10-acre spacing units; well location to be located anywhere within the spacing unit but no closer than 220' from the exterior boundary lines of the field nor closer than 440' to any well capable of or producing from the Sunburst Sands. (Order 46-81)
LITTLE ROCK Bow Island-Blackleaf	0	11	0	320-acre N 1/2 and S 1/2 spacing units. Well location no closer than 990' from west line of Section 14 and 660' from the remaining unit boundary lines. (Order 40-78) Field enlargement. (Orders 94-79 and 34-80)
LITTLE WALL CREEK Stensvad Tyler Tyler-Stensvad	1 3 4	0 0 0	0 0 0	Statewide. Produced water injected into Tyler formation. (Orders 54-A-77, 63-A-78, 1-A-81) South Little Wall Creek Unit waterflood. (Order 85-83) Little Wall Creek, Tyler Sand Unit. (Order 40-84) Enhanced recovery approved EPA-84, 86.
LITTLE WALL, SOUTH & UNIT Tyler	18	0	1	Statewide. Enhanced recovery approved EPA-87 and Order 39-87).
LOBO Interlake Red River	1 1	0 0	0 0	Statewide.

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
LODGE GRASS				
Minnelusa	1	0	0	Statewide.
Tensleep	1	0	0	
LOHMAN				
Eagle	0	4	3	640-acre spacing; one well per section to be located no closer than 990' from section line. (Order 23-78)
LONE BUTTE				
Red River	2	0	0	Single 320-acre spacing unit for Red River and Interlake formations; 160-acre spacing units for
Mission Canyon	1	0	0	Madison with well location no closer than 660' from unit boundary with 150' tolerance for topographic or geologic reasons. (Order 83-85)
LONETREE CREEK				
Red River	8	0	1	320-acre spacing, wells 660' from spacing boundary, 2,000' between wells. (Order 29-72) Field reduction. (Orders 162-81 and 84-85)
LONETREE CREEK, WEST				
Red River	1	0	0	Spacing units shall be S 1/2 and N 1/2 of Section 12, T24N R56E. No well closer than 660' from boundary or 1,320' from existing well. (Order 73-82)
LONG CREEK				
Charles C	1	0	0	Statewide.
LONG CREEK, WEST				
Nisku	2	0	0	80-acre spacing units comprised of two contiguous quarter quarter sections which may lie in either one or two governmental sections aligned either north-south or east-west with location to be no closer than 330' from unit boundary nor less than 1,000' from any other producing well. (Order 27-77) Field enlarged. (Order 71-83) SWD approved EPA-86.
LOOKOUT BUTTE				
Madison	3	0	5	160-acre spacing; well location in center of SE 1/4 of each quarter section with 150 topographic tolerance. (Order 21-62) Coral Creek Unit not subject to spacing rules. Redelineated. (Order 7-63) Field reductions. (Orders 57-85 and 6-87)
Silurian-Ordovician	44	0	4	Water disposal into Madison. (Order 68-62) Waterflood of Silurian- Ordovician approved in 1966. (Order 35-66) Water from Minnelusa. Enhanced recovery approved EPA-87. SWD approved EPA-88.
LOOKOUT BUTTE, EAST				
Red River	8	0	0	22 delineated spacing units with wells located no closer than 660' to the unit boundary with
Lodgepole	1	0	0	175' topographic tolerance. (Order 87-85) Field enlargement. (Order 6-87) Enhanced recovery approved EPA-87. Pilot Red River "B" waterflood approved. (Order 19-88)
LORING UNIT				
Greenhorn-Phillips-Carlile	0	112	1	Federal Unit.
LORING, EAST				
Bowdoin-Greenhorn-Phillips-Carlile	0	81	0	160-acre spacing units; where discrete gas formations (Bowdoin, Greenhorn and Phillips) exist, a well may be drilled to each discrete formation and may be located no closer than 660' from the unit boundaries. (Order 60-82)
LORING, WEST				
	0	2	0	Spacing units comprised of 1 full section with 4 wells permitted to each formation in each spacing unit located no closer than 660' to the exterior boundary of the section and no closer than 1320' to a well in the same formation. (Order 7-87)
LOWELL				
Red River	3	0	1	320-acre spacing units consisting of two contiguous governmental quarter sections which may lie in either one or two governmental sections. Wells to be located no closer than 660' from unit boundary or closer than 1,650' to well producing from the same horizon. (Order 104-79)
LUSTRE AND AREA				
Madison	50	0	15	80-acre spacing units consisting of 1/2 of a regular governmental quarter section. Either E 1/2 or W 1/2 or or N 1/2 and S 1/2. Well to be located in either NE 1/4 or SW 1/4 with 200' tolerance. (Order 19-83) Field enlargement. (Order 43-84) Produced water disposed into Dakota-Swift formation. (Order 39-A-83 and 58-A-84) SWD approved EPA-85, 86, 87.

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
LUSTRE, NORTH				
Ratcliffe	1	0	0	80-acre spacing units consisting of E 1/2 or W 1/2 of a governmental quarter section; wells located no closer than 660' to spacing unit boundary with 200' topographic or geologic tolerance. (Order 39-84)
MACKAY DOME				
Greybull	0	0	5	Statewide.
MARIAS RIVER				
Bow Island	0	19	1	One well per section per horizon above the top of the Kootenai. Location to be no closer than 990' from section line. (Order 18-78) Field enlargement. (Order 12-83)
MASON LAKE				
Amsden	0	0	4	80-acre spacing units consisting of one half of a quarter section lying in either east-west or north-south direction; well location in center of the NE and SW quarter-quarter sections of each quarter section with 75' topographic tolerance. (Order 35-78) Amending Order 35-78 for certain lots designated as spacing units. (Order 66-78) Field enlargement. (Order 16-79) Produced water disposed into Muddy formation. (Order 3-A-80) and into Mowry formation. (Order 29-A-84) SWD approved EPA-85. Enhanced recovery approved EPA-88. (Order 37-88)
Cat Creek	9	0	6	
McCABE				
Ratcliffe	2	0	0	160-acre spacing units; permitted well to be no closer than 660' from spacing unit boundary. (Order 100-80) 150' tolerance allowed for topographic reasons. (Order 3-81) Board Order No. 100-80 amended to eliminate the requirement of 1,650' between wells producing from the Madison Group. (Order 37-81)
McCABE, WEST				
Red River	1	0	0	Single spacing unit. (Order 49-84)
McCOY CREEK				
Red River	1	0	0	Statewide.
MEANDER				
Sunburst	2	0	0	Statewide.
MEDICINE LAKE				
Silurian-Ordovician	7	0	0	320-acre spacing units comprised of any two contiguous governmental quarter sections in either one or two governmental sections. Well to be located no closer than 660' from unit boundary nor closer than 1,650' to any well producing from the same formation. (Order 50-79) Produced water disposed into Muddy, Kibby and Dakota formations. (Orders 133-A-81, 111-A-82) SWD approved EPA-86.
Winnipegosis	2	0	0	
Mission Canyon	0	0	1	
MELSTONE				
Tyler	12	0	2	Statewide. Enhanced recovery approved EPA-86.
MIDDLE BUTTE				
Bow Island	0	2	0	Orders 3-60, 21-75 amended to delineate field extension and 320-acre spacing units consisting of the E 1/2 and W 1/2 of each section; well location no closer than 990' from the section line and 660' from the interior boundary. (Order 47-77)
Blackleaf	0	1	0	
Second White Specks	0	1	0	
MIDFORK				
Charles C	2	0	1	Statewide. SWD approved EPA-86.
MINERAL BENCH				
Charles C	1	0	0	Statewide. Water disposal into Dakota-Lakota per (Order 18-65). Produced water injected into Judith River. (Order 110-A-82) SWD approved EPA-86
MINERS COULEE				
Bow Island	0	14	0	Oil: 40-acre units consisting of quarter-quarter sections; well location no closer than 330' from lease or property line and 660' from any other well. (Order 9-66) Order 9-66 amended to comply with Order 5-74. Gas: 160-acre spacing with wells 990' from boundary. (Order 5-74) Sawtooth gas spacing unit. (Order 43-76) Field redelineation. (Order 44-77) Field enlargement. (Order 4-80)
Sawtooth	0	1	0	
Sunburst	1	4	7	

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
MISSOURI BREAKS				
Red River	1	0	0	320-acre spacing units as specified by Order 97-82.
MONA				
Red River	1	0	2	Statewide.
MONARCH				
Madison	0	0	2	80-acre spacing units consisting of E and W 1/2 of quarter section. Well location in SW 1/4 and NE 1/4 of quarter section. Location within 660' square at center of quarter section. (Order 18-61) 160-acre spacing units consisting of a quarter section; well location in center of SW 1/4 of each quarter section with 175' topographic tolerance. (Orders 12-59, 4-63) Produced water is disposed into the salt water disposal system for the Pennel Field. Water-flood initiated 12-1-73. (Order 23-73) Produced water disposed into the Silurian and Charles formation. (Orders 52-A-83 and 55-A-83)
Silurian-Ordovician	16	0	6	
MONDAK, WEST				
Devonian	0	0	1	320-acre spacing units for Silurian and Ordovician pools. Units to consist of either N 1/2 and S 1/2, or E 1/2 and W 1/2. Well location to be no closer than 660' to unit boundary or closer than 1,650' to any well drilling or producing from same pool. (Order 42-77) 320-acre spacing units for Madison and Devonian formations. Units to consist of either N 1/2 and S 1/2, or E 1/2 and W 1/2. Well location to be no closer than 660' from a quarter section line or section line and no closer than 1,650' to any well drilling or producing from same pool. (Orders 23-77, 33-78, 51-79) Order 51-79 amended to enlarge Madison formation delineation. (Order 95-83) Produced water injected into Dakota-Lakota. (Order 49-A-78 and 111-A-80) SWD approved EPA-86
Madison	27	0	1	
Silurian-Ordovician	12	0	0	
MOSSER DOME				
Mosser Sand	23	0	1	Spacing waived. Future development requires administrative approval of the Board. (Order 27-62)
MT. LILLY				
Bow Island	0	1	0	640-acre spacing, well location in approximate center of any of the four quarter-quarter sections adjoining center of section; 250' topographic tolerance. (Order 37-63)
Madison	0	0	2	
Swift	0	1	0	
MUSSELSHELL				
Tyler	1	0	1	Statewide.
MUSTANG				
Red River	2	0	1	Statewide.
Madison	1	0	0	
NEISER CREEK				
Red River	1	0	0	Single spacing unit. (Order 78-82)
NINEMILE				
Nisku	2	0	0	Statewide.
NOHLY				
Nisku	5	0	0	Single spacing unit. (Order 77-84) Field enlarged for 320-acre Red River spacing units (Order 54-84) and 160-acre Nisku spacing units. (Order 55-84)
Ratcliffe	4	0	0	
Red River	3	0	0	
NORTH FORK				
Madison	6	0	0	Statewide.
O'BRIENS COULEE				
Blackleaf	0	2	1	Statewide.
Bow Island	0	13	1	
Bow Island-Spike	0	1	0	
Second White Specks	0	1	0	

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
OLD SHELBY AND AREA				
Bow Island	0	4	0	320-acre spacing units to be comprised of either E 1/2, W 1/2, N 1/2, or S 1/2 of a section for Swift, Kootenai, Dakota, and Sunburst gas. Well location to be no closer than 660' to the unit boundary. Original spacing Order 85-81 plus field enlargement and amendment orders were superseded by Order 90-83 and subsequently by Order 15-88. Field extensions (Orders 40-88 and 47-88)
Swift-Sunburst	0	39	2	
OLJE				
Red River	1	0	0	Single 160-acre spacing unit. (Order 35-85)
OLLIE				
Duperow	1	0	0	320-acre specified spacing units for the Red River and Duperow formations. The permitted well for each spacing unit to be located no closer than 660' from the spacing unit boundary. (Order 73-80) Produced water disposed into the Dakota formation. (Order 11-A-82)
Red River	1	0	0	
OTIS CREEK				
Red River	2	0	0	Statewide.
OTIS CREEK, SOUTH				
Red River	3	0	0	320-acre spacing units; well to be located no closer than 660' to unit boundary. (Order 39-72) Extended field boundary. (Orders 56-76, 67-76) Orders 39-72 and 56-76 amended to eliminate spacing units. New spacing units are quarter sections. Well location no closer than 660' from unit boundary or 1,650' from producing well with 150' tolerance. Operator may designate contiguous quarter sections as spacing units. (Order 73-81)
OUTLOOK				
Duperow	1	0	0	160-acre spacing units; well location in center of either SW 1/4 or NE 1/4 of each quarter section; 175' topographic tolerance. (Order 19-59A)
Interlake	1	0	1	
Nisku	1	0	0	Produced water is disposed into Dakota and Siluro-Devonian formations (Orders 16-59, 17-65, 36-66, 9-A-77) into Madison formation (Order 59-A-78) and into Dakota and Muddy formations. (Order 61-A-84) SWD approved EPA-86, 88.
Winnipegosis	5	0	1	
OUTLOOK, SOUTH				
Winnipegosis	1	0	0	160-acre spacing; permitted wells in either SW 1/4 or NE 1/4 of quarter section; 175' topographic tolerance. (Orders 19-59A) Commingling permitted. (Order 45-64) Produced water disposed into Muddy and Dakota formations. (Order 17-65).
OUTLOOK, WEST				
Winnipegosis	2	0	0	160-acre spacing units consisting of quarter sections; permitted wells in either SW 1/4 or NE 1/4 with a tolerance of 175'. (Order 7-67) Produced water disposed into Dakota formations. (Order 42-66)
OXBOW				
Red River	1	0	0	320-acre spacing units consisting of two contiguous governmental quarter sections which may be in one or two governmental sections lying east-west or north-south at operator's option. Location to be no closer than 660' to the unit boundary or closer than 1,650' to a well producing from same pool. (Order 7-78) Field enlargement. (Order 137-80)
OXBOW II				
Red River	1	0	0	320-acre spacing units consisting of two contiguous quarter sections which may cross section lines; wells located no closer than 660' to spacing unit boundaries. (Order 50-84)
PALAMINO				
Nisku	4	0	1	Statewide. Produced water disposed into the Dakota formation. (Order 6-A-82, 58-A-82) SWD approved EPA-86.
PARK CITY				
Virgelle	0	1	0	Statewide.
PELICAN				
Red River	1	0	0	320-acre spacing units; wells to be located no closer than 660' to any governmental section or quarter section line boundary. (Order 21-79)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
PENNEL Silurian-Ordovician	184	1	31	80-acre spacing units consisting of E and W 1/2 of quarter section; wells located in center of SE 1/4 and NW 1/4 of quarter sections with 150' topographic tolerance. (Order 15-61) 80-acre spacing units on west side and 160-acre spacing units on east side of pool. Wells to be located in SE 1/4 and NW 1/4 of each quarter section (80 acres) and in SE 1/4 of each quarter section on 160-acre spacing. (Orders 1-56, 8-56, 15-61, 20-62, 4-63, 7-63) Commingling approved. (Order 59-62) Produced water is being injected into Dakota, Siluro-Ordovician and Madison formations. (Orders 16-60, 46-62, 68-62, 36-63, 13-64) Waterflood for Siluro-Ordovician approved November 1968. (Order 24-68) Enhanced recovery approved EPA-86. SWD approved EPA-87.
PETE CREEK Sunburst	1	0	0	Statewide.
PHANTOM Sunburst	0	2	4	Gas: wells permitted anywhere within the unit but no closer than 990' to the unit boundary. Oil: Projected depths greater than 6,000' to be located no closer than 660' to the unit boundary. Project depths less than 6,000' to be located no closer than 330' to the unit boundary. (Order 48-77)
PHANTOM, WEST Sunburst	0	1	0	One well per spacing unit to be located no closer than 660' to the exterior boundaries of three certain spacing units. (Order 65-78)
PINE Madison Silurian-Ordovician	0 99	0 0	3 29	Statewide spacing rules are waived within the Pine Unit. 80-acre spacing units outside of unit area; well location in NW 1/4 and SE 1/4 of quarter section; 150' topographic tolerance. (Order 37-62) Gas through extraction plant. A waterflood program for the south area was started in 1959. A waterflood of the north area was approved in 1967. (Orders 13-68, 1-60, 8-62, 32-67) Produced water injected into Mission Canyon. (Order 10-A-74) Brine and CO2 injection test. (Order 70-83) Enhanced recovery approved EPA-85.
PIPELINE Red River	1	0	0	Statewide.
POLICE COULEE Bow Island	0	7	2	320-acre spacing units; location no closer than 990' from section line and 660' from half section lines. Spacing units to consist of N 1/2 or S 1/2, E 1/2 or W 1/2 at discretion of operator. (Order 53-76) Extended field boundaries. (Order 24-77) Field enlargements. (Orders 20-79 and 46-79)
PONDERA Madison Sun River	377 13	0 0	41 2	Oil: 220' from legal subdivision, 430' from other wells in same reservoir on same lease; 75' topographic tolerance. Porter Bench Extension: 330' from legal subdivision line; 650' from other wells in same reservoir on same lease or unit; 75' topographic tolerance. (Order 9-54) Gas: Well to be located no closer than 1,320' from the boundaries of any quarter section line, nor less than 3,700' from every other drilling or producible well on the same lease or unit. (Order 9-54 corrected) Amend Order 9-54 to designate 160-acre spacing units for gas with wells to be located no closer than 660' from unit boundaries. (Order 26-83) Produced water injected into lower Madison. (Orders 11-56, 15-56, 4-65, 4-66, 20-A-71, 57-A-78, 58-A-78, 62-A-78, 71-A-78, 29-A-79, 62-A-79, 63-A-79, 64-A-79, 65-A-79, 14-A-80, 15-A-80, 16-A-80, 17-A-80, 127-A-81, 108-A-82, 7-A-82, 1-A-83, 30-A-84) SWD approved EPA-86, 87, 88.
PONDERA COULEE Madison Sun River	3 5	0 0	0 0	330' from legal subdivision lines or upon a 10-acre spacing pattern; 75' topographic tolerance. (Order 5-62)
POPLAR, EAST Heath Madison Nisku	1 51 0	0 0 0	1 16 1	Statewide spacing; field delineated by Order 7-55. Redelineation of field. (Order 25-76) Unitized in 1955. (Order 7-55) Excess produced water has been injected into the Dakota, Judith River, and Mission Canyon formations. (Orders 1-55, 5-57, 7-57, 14-61, 21-61, 34-61, 10-62, 51-67, 10-A-73, 127-A-80, and 121-A-81) SWD approved EPA-86, 87.)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
POPLAR, NORTHWEST AND AREA				
Charles	33	0	2	80-acre spacing units consisting of E 1/2 and W 1/2 of each quarter section; permitted wells to be located in the center of NW 1/4 or SE 1/4 of each quarter section with 75' tolerance allowed in any direction for surface hazards and obstructions. (Order 18-55) 80-acre specifically designated spacing units with well location to be located in the center of the NW 1/4 or SE 1/4 of each quarter section with a tolerance of 150' in any direction for topographic or geologic reasons. (Order 26-76) 80-acre spacing units to be N 1/2 and S 1/2 or E 1/2 and W 1/2 of each quarter section; permitted well to be located in center of each NE 1/4 or SW 1/4 of each quarter section with 150' tolerance for topographic or geologic reasons. (Orders 124-80, 97-84 and 6-85) 80-acre spacing units for test wells to the Charles formation; spacing units to be N 1/2 and S 1/2 or E 1/2 and W 1/2 of each quarter section with location to be in center of each NE 1/4 of SW 1/4 of each quarter section with 150' tolerance for archeological reasons only. (Order 161-81) Field enlargement with 80-acre spacing units consisting of N 1/2 and S 1/2 of each quarter section with wells to be located in center of the NE or SW quarter of each quarter section with 150' topographic or geologic tolerance. (Order 42-83) Produced water disposed into Dakota. (Order 61-A-78, 128-A-82, 62-A-83) Produced water disposed into the Judith River formation. (Orders 13-A-82 and 14-A-82) SWD approved EPA-85, 86.
PRAIRIE DELL				
Bow Island-Dakota-Sunburst-Swift	0	69	1	320-acre spacing units with well location no closer than 660' to spacing unit boundary. (Order 10-76) Field enlargement by Orders 28-78, 24-79, 132-80, 40-81, 54-81, 142-81, 56-83, 9-85, 60-86 and 12-87). Two wells per spacing unit approved for a portion of the field, well locations no closer than 1320' to a producing well. (Order 21-88)
PRAIRIE DELL, WEST				
Swift	0	1	0	Statewide.
PRAIRIE ELK				
Charles C	2	0	0	Statewide.
PRICHARD CREEK				
Bow Island	0	0	2	Well locations subject to administrative approval. Unitized as to Sunburst for water injection. (Order 7-73)
Sunburst	1	0	5	
Swift	1	0	0	
PRONGHORN				
Red River-Interlake	5	0	0	160-acre spacing units; wells located no closer than 660' from unit boundary with 150' topographic or geologic tolerance. (Orders 75-84 and 110-84)
PUTNAM				
Interlake	4	0	0	Statewide, except for single spacing unit consisting of portions of Sections 15 and 16, T23N, R57E for production from all formations between 6,000 to 11,000 feet. (Order 2-84 amended by Order 11-85)
Madison	6	0	0	
Red River	5	0	0	
Bakken	1	0	0	
RABBIT HILLS				
Sawtooth	2	0	0	Statewide.
RABBIT HILLS, NORTHEAST				
Sawtooth	5	0	0	Statewide.
RABBIT HILLS, SOUTHWEST				
Sawtooth	1	0	0	Statewide.
RAGGED POINT				
Tyler	5	0	6	40-acre spacing units; 75' topographic tolerance. (Order 8-59) Spacing waived for Tyler "A" sand reservoir within Tyler "A" Sand Unit except no well can be closer than 660' to unit boundary. (Order 35-65) A waterflood project on the Tyler "A" sand was commenced in February 1966, using Third Cat Creek water. (Order 35-65)
RAGGED POINT, SOUTHWEST				
Tyler	9	0	3	Applicants may drill and produce wells to the Tyler "A" formation anywhere within the unit but not closer than 330' to the unit boundaries. (Order 83-82) Tyler "A" waterflood unit agreement approval effective August 1, 1982. (Order 83-82)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
RAINBOW Red River	1	0	0	Single spacing unit. (Order 69-82)
RAPELJE Eagle-Virgelle-Clagget	0	12	2	160-acre spacing. Wells no closer than 990' to unit boundary. Commingling after administrative approval. (Order 29-73)
RATTLER BUTTE Tyler	4	0	2	Statewide.
RATTLESNAKE BUTTE Amsden Cat Creek	4 2	0 0	3 0	Statewide. SWD approved EPA 86,87.
RATTLESNAKE COULEE Bow Island Sunburst	0 0	2 1	0 0	Statewide.
RAYMOND Duperow Mississippian Nisku Red River Winnipegosis	0 7 1 2 2	1 0 0 0 0	0 2 0 0 0	320-acre spacing units for Red River, Winnipegosis, Duperow, and Nisku formations. Wells 660' from spacing unit boundary. (Order 38-72) Gas Storage. (Order 50-78 and amended by Order 60-79) Mississippian pool delineation with 40-acre spacing units, wells no closer than 330' to spacing unit boundary. (Order 35-79) Field enlargement for Mississippian pool. (Orders 31-80 and 128-80) Field reduction for Nisku pool. (Order 135-81) Produced water injected into Dakota formation. (Order 38-A-74) Produced water injected into Mission Canyon. (Order 105-A-79 and 113-A-80) Produced water injected into Ratcliffe formation. (Order 131-A-81) Authorization to inject gas into the Nisku formation. (Order 135-81)
RAYMOND, NORTH Red River	1	0	0	Single spacing unit. (Order 94-82)
REAGAN Madison	53	6	11	Statewide. (Order 17-54) A pressure maintenance project utilizing gas injection was started in 1961. (Order 21-60) Waterflood. (Order 27-72)
RED BANK Madison Red River	10 3	0 0	1 0	Statewide. Produced water disposed into the Dakota formation. (Order 10-A-82)
RED BANK, SOUTH Red River	1	0	0	Statewide.
RED CREEK Cut Bank-Madison	17	0	2	40-acre spacing units; wells in center of spacing unit with 75' topographic or obstruction tolerance; spacing and field rules waived for unitized portion. (Orders 16-58, 73-62, 31-64, 5-70) Excess produced water injected into Bow Island and Madison. (Orders 22-63, 37-64, 40-A-83, and 19-A-84) A waterflood project in the Cut Bank sand was initiated in June 1965, using Madison water. Enhanced recovery approved EPA-86, 87.
RED FOX Nisku	1	0	0	Field consists of one 160-acre spacing unit which straddles the section line. (Order 20-67)
RED ROCK Eagle Judith River	0 0	4 0	1 3	Spacing units shall consist of the N 1/2 and S 1/2 of section with permitted well to be no closer than 990' from exterior section line nor closer than 660' to half section line. (Order 89-79)
RED WATER Duperow	0	0	1	Statewide.
RED WATER, EAST Red River	1	0	0	320-acre spacing units consisting of 2 contiguous quarter sections with permitted well to be no closer than 660' to exterior boundaries of spacing unit. (Order 31-83)
REFUGE Red River	1	0	0	Statewide.

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
REPEAT				
Red River	1	0	0	Statewide.
RESERVE				
Red River	3	0	0	160-acre spacing units; permitted well within 1,320' square in center of quarter section. Commingling of Red River and Interlake production permitted on individual well basis. (Orders 34-66, 27-67) Field reduction. (Order 68-85) Excess water injected into Dakota sand. (Order 23-A-67) SWD approved EPA-85.
Winnipegosis	1	0	0	
RESERVE II				
Red River	1	0	0	Single 160-acre spacing unit. (Order 44-87)
Winnipegosis	1	0	0	Single 160-acre spacing unit. (Order 55-88)
RESERVE, SOUTH				
Red River	1	0	0	Single spacing unit. (Order 33-86)
RICHEY AND AREA				
Charles	4	0	1	Statewide. Original 80-acre spacing revoked. (Order 11-73)
RICHEY, SOUTHWEST				
Interlake	2	0	0	160-acre spacing units; wells no closer than 900' from boundary of spacing unit. (Order 25-62) A waterflood project in the Interlake and Dawson Bay was started in 1965. (Order 34-65)
RIDGELAWN				
Duperow	5	0	1	Statewide. SWD approved EPA 86.
Madison	25	0	0	
Red River	3	0	0	
RIPRAP COULEE				
Ratcliffe	5	0	0	160-acre spacing units; wells located no closer than 660' from spacing unit boundary with 150' topographic and geologic tolerance. (Order 93-84)
RIVER BEND				
Red River	1	0	0	Statewide.
ROCKY BOY AREA				
Eagle	0	7	0	Statewide.
ROCKY POINT				
Red River	1	0	1	320-acre spacing unit; well to be located no closer than 660' from exterior boundary. (Order 22-79)
ROSCOE DOME				
Lakota	0	0	3	Statewide. Steam injection into Greybull and Lakota formations. (Order 40-82)
ROSEBUD				
Tyler	5	0	0	Statewide.
ROYALS				
Dawson Bay	1	0	0	Statewide.
RUDYARD				
Eagle	0	2	0	640-acre spacing units consisting of one section; well location in center of NW 1/4 of section with 75' topographic tolerance. (Order 2-58) Field boundaries reduced. (Order 39-76)
Sawtooth	0	5	0	
RUNAWAY				
Madison	1	0	0	Statewide.
RUSH MOUNTAIN				
Winnipegosis	1	0	0	Statewide. Dual zone completion in discovery well. Commingling approved. (Order 17-85) Excess water injected into Dakota Sand. (Order 5-A-71) SWD approved EPA-87.
Red River	0	0	1	

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
SAGE CREEK				
Blackleaf	0	1	0	640-acre spacing, one producing well per section per formation above the Kootenai to be located no closer than 990' from section line. (Order 38-77) Amended field boundary. (Order 86-79) Field enlargement. (Order 33-81, 65-83 and 36-84)
Bow Island	0	1	0	
Second White Specks	0	14	3	
SALT LAKE				
Nisku	3	0	0	Statewide. Produced water disposed into Nesson (Madison) formation. (Order 61-A-80) SWD approved EPA-88.
Ratcliffe	1	0	0	
Red River	3	0	0	
SAND CREEK				
Interlake	4	0	0	80-acre spacing units consisting of any two adjacent quarter-quarter sections. Wells located in center of NW 1/4 and SE 1/4 of each quarter section. (Order 16-59) Commingling of production from Interlake and Red River authorized. (Order 49-62) Excess produced water is injected into the Swift formation. (Order 9-61) SWD approved EPA-86.
SANDWICH				
Swift	0	1	0	320-acre spacing unit. Well located no closer than 990' to spacing unit boundaries. (Order 17-77)
SATURN				
Ratcliffe	1	0	0	Statewide. SWD approved EPA-88.
SAWTOOTH MOUNTAIN & AREA				
Eagle	0	32	5	640-acre spacing units, one well per section per formation, location to be not less than 990' from governmental section line. (Order 45-76) Amended to allow one well per formation per quarter section in six sections. Wells no closer than 660' to quarter section lines and 990' to section lines. (Order 65-85)
Judith River	0	4	2	
SECOND CREEK				
Duperow	0	0	1	303.1-acre Red River spacing unit. (Order 34-78) (Order 127-A-82) 160-acre Duperow spacing units; well locations for each unit to be as specified by Order 119-80. Produced water injected into Dakota/Lakota formations.
Red River	3	0	0	
Mission Canyon	1	0	0	
SHEEPHERDER				
Tyler	2	0	0	Statewide. Waterflood of Tyler "A" authorized May 1984. (Order 33-84) Amended. (Order 107-84)
SHELBY AREA				
Sunburst	0	1	1	Statewide.
SHERARD				
Eagle	0	37	36	640-acre spacing units; 990' from section line. (Order 1-74) 160-acre spacing units; (Eagle) 990' from section line, 660' from quarter section line. (Order 7-77) Enlarged field boundary with well locations no closer than 660' from quarter section line in enlarged area. (Order 4-83) 320-acre Eagle gas spacing units for Sections 19 and 30, T26N, R17E; wells located no closer than 990' to unit boundaries. (Order 24-87)
Judith River	0	2	3	
SHOTGUN CREEK				
Ratcliffe	3	0	0	Statewide.
SIDNEY				
Madison	18	0	6	160-acre spacing units for Madison Group. One well per spacing unit to be located no closer than 660' from unit boundary and no closer than 1,650' to well producing from the same formation. (Order 5-79) Field enlargement. (Order 99-80) Excess water injected into Dakota formation. (Order 41-A-78) SWD approved EPA-86.
Red River	2	0	0	
SIDNEY, EAST				
Madison	9	0	0	Statewide.
SINGLETREE				
Winnipegosis	1	0	0	Single spacing unit. (Order 78-84) Produced water disposed into Dakota formation. (Order 59-A-80)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
SIoux PASS				
Red River	7	0	0	320-acre spacing units consisting of two adjacent governmental quarter sections lying north-south or east-west at operator's option. Permitted well no closer than 660' from unit boundary. (Interlake and Red River) 160-acre spacing unit (Mission Canyon) with well no closer than 660' from unit boundary. Commingling of Interlake and Red River production authorized. (Order 10-75) Amended field boundary. (Order 15-77) Field reduction. (Order 89-81) Excess water injected into Dakota formation (Order 15-A-75) SWD approved EPA-86.
Interlake	1	0	0	
SIoux PASS, EAST				
Red River	1	0	0	Statewide.
SIoux PASS, MIDDLE				
Red River	6	0	0	320-acre spacing units to consist of two contiguous governmental quarter sections at operator's option. Location to be no closer than 660' from exterior boundary of unit and no closer than 1,650' from well producing from same formation. Commingling permissible with Administrative approval. (Order 55-76) An exception to Order 55-76 by (Order 39-81).
SIoux PASS, NORTH				
Madison	4	0	0	320-acre spacing units with well locations at least 660' from unit boundary. (Order 12-75) Commingling approved. (Order 17-76) Field amendments. (Order 8-79, 10-81, and 13-86) Field extensions. (Orders 12-77, 13-79 and 48-81) Produced water injected in Dakota- Lakota formations. (Order 34-A-75) Two 320-acre spacing units. (Orders 107-80, 74-82)
Red River	11	0	2	
Red River/Nisku	1	0	0	
SIoux PASS, SOUTH				
Red River	2	0	0	Statewide.
SNOOSE COULEE				
Bow Island	0	7	2	640-acre spacing units; location no closer than 990' from spacing unit boundary. Bow Island and shallower formations. (Order 18-77) 320-acre Sunburst gas spacing unit approved. (Order 58-88)
SNYDER				
Tensleep	3	0	1	10-acre spacing units with center 5-spot permitted; 150' topographic tolerance. (Order 45-62)
SOAP CREEK				
Madison-Amsden	21	0	3	One well per 10-acre spacing unit per producing formation; well location in center of spacing unit with 100' topographic tolerance. (Order 26-60)
Tensleep	9	0	2	
SOAP CREEK, EAST				
Tensleep	3	0	0	Statewide.
SOBERUP COULEE				
Bow Island	0	1	0	Statewide.
SOUTH FORK				
Mission Canyon	1	0	1	Statewide. SWD approved EPA-87.
Red River	2	0	0	
SPRING COULEE				
Sawtooth	0	1	0	Statewide.
Second White Specks	0	1	0	
SPRING LAKE				
Bakken	1	0	0	One well per 160-acre spacing unit. Well location anywhere within 840' square in center of spacing unit. (Order 6-63) Field redelineation. (Orders 30-76, 49-76)
Red River	2	0	0	
SPRING LAKE, SOUTH				
Red River	1	0	0	Single spacing unit. (Order 81-81)
SPRING LAKE, WEST				
Bakken	1	0	0	Single spacing unit. (Order 42-82)

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
STAMPEDE				
Duperow	1	0	0	320-acre specified spacing units for the Red River formation. 160- acre spacing units for the
Red River	1	0	0	Duperow formation with well location to be no closer than 660' from a spacing unit boundary line. (Order 19-82)
STENSVAD				
Tyler	11	0	6	40-acre spacing units; well location in center of spacing unit with 200' tolerance. (Orders 2-59 and 7-60) Wells may be drilled anywhere within waterflood unit boundary, no closer than 660' from unit boundary. (Order 5-65, amended) SWD approved EPA-86.
STRAWBERRY CREEK AREA				
Bow Island	0	1	0	Statewide.
Burwash	0	1	0	
STUDHORSE				
Stensvad	3	0	2	Statewide.
Tyler	0	0	1	
SUMATRA				
Amsden-Tyler	71	0	79	40-acre spacing units; well located in center of unit with 75' tolerance. (Order 14-58) Field
Heath	1	0	0	redelineated. (Order 14-75) Vacuum pumps permitted on certain wells. (Orders 99-79 and
Madison	0	0	1	32-80)
				Seven waterflood units using Madison water. (Orders 48-67, 6-69, 19- 69, 23-69, 5-75, 21-78, and 43-80) Produced water disposed into Madison formation. (Order 7-A-76) Convert CSTSU, SESTSU and Kincheloe Sumatra Unit to tertiary recovery projects. (Orders 99-84, 100-84 and 29-85) CSTSU enhanced recovery approved EPA-88.
SUNNYHILL				
Madison	2	0	0	320-acre spacing units; location to be no closer than 660' to the section or quarter section line
Red River	1	0	0	which is the exterior boundary of the unit nor closer than 1,650' to any well producing from same formation. (Order 39-78) Field boundaries reduced. (Order 79-84) Produced water disposed into Dakota formation (Order 27-A-80)
SUNNYHILL, WEST				
Red River	1	0	0	Statewide. SWD approved EPA-85.
SWANSON CREEK				
Bowdoin-Greenhorn-Phillips	0	59	0	320-acre spacing units; (Order 36-75) amended to enlarge field and provide that spacing units may run north-south or east-west with permitted wells to be no closer than 990' to section or quarter section lines. (Order 11-78) Field boundaries extended by Orders 32-78, 92-79, 66-80 and 55-81. All previous Swanson Creek orders are amended to allow one additional well in each existing 320-acre spacing unit that shall be drilled in a manner that there be no more than one well per quarter section and located no closer than 660' to the quarter section boundaries. (Order 28-82)
SWEETGRASS				
Sunburst	0	2	0	Single spacing unit. (Order 121-82)
TARGET				
Madison	9	0	3	Single spacing unit for Mission Canyon/Ratcliffe formations. (Order 18-82) Amendment to Order 18-82 for field enlargement and establishing 160-acre spacing units with permitted well locations to be no closer than 660' from the unit boundaries. 150' tolerance for topographic reasons. (Order 35-82) Field enlargement. (Order 23-84) SWD approved EPA-86.
THIRTY MILE				
Sawtooth	0	0	1	Statewide.
THREE BUTTES				
Red River-Gunton	1	0	0	160-acre spacing units, well location no closer than 660' from governmental quarter section
Mission Canyon	1	0	1	line or unit boundary. (Order 11-81).
THREE MILE				
Eagle	0	2	4	Statewide.

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
TIBER				
Bow Island	0	1	2	Spacing allows one well for each gas producing horizon to be located anywhere within the section but no closer than 990' to the section line. (Order 143-81) Enlarged. (Order 21-84) Two wells for each formation per section no closer than 1,320' to each other in each section. (Order 28-85).
TIBER, EAST				
Bow Island	0	7	0	One well per governmental section located no closer than 990' to section lines. (Order 21-84) Two wells for each formation per section no closer than 1,320' to each other in each section. (Order 28-85).
TIGER RIDGE & AREA				
Eagle	0	263	55	Field delineation and redelineations. (Orders 17-67, 23-68, 10-70, 13-75, 46-78, 48-79, and 26-80) Statewide spacing for field area not unitized. Spacing rule amendments. (Orders 11-72, 41-72, 32-73, 37-75, 51-77, 52-77, 79-79, 26-80, 50-80, 51-80, 54-80, 26-82, 14-84, 26-85, 48-85, 49-85, and 56-85)
Judith River	0	1	0	Excess produced water injected into Eagle formation. (Orders 19-A-73, 46-A-75) (Order 19-A-73) Amended by Order 60-A-78. SWD approved EPA-87.
TIGER RIDGE, NORTH				
Eagle	0	1	0	160-acre spacing units; one well per horizon per spacing unit from the Virgelle formation to the surface. Well to be no closer than 990' to the section line nor closer than 660' to the interior quarter section line. (Order 80-79)
TIMBER CREEK				
Sunburst	0	0	1	Statewide.
Bow Island	0	1	0	
TINDER BOX				
Tyler	1	0	0	Statewide.
TIPPY BUTTES				
Tyler	1	0	0	Statewide. Water injection into lower Tyler formation. (Order 57-82)
TRAIL CREEK				
Bow Island	0	5	0	One well per 320-acres consisting of S 1/2 and N 1/2 of each governmental section but not closer than 990' from spacing boundary. (Orders 33-70, 28-76) Field enlargements. (Order 135-80)
Swift-Sunburst	0	3	0	
TULE CREEK				
Nisku	3	0	1	160-acre spacing units with permitted well anywhere within 1,320' square in center of each unit. (Orders 26-62, 6-65, 11-67, 5-77, 52-86)
Devonian	1	0	0	Produced water injected into Dakota and Judith River formations. (Orders 12-66, 24-67, 8-A-76, 134-A-81) Produced water disposed into Dakota formation. (Order 38-A-82) SWD approved EPA 86
TULE CREEK, EAST				
Nisku	1	0	0	160-acre spacing units with permitted well anywhere within 1,320' square in center of each unit. (Orders 40-64, 6-65, 4-86) Water injected into Judith River formation. (Order 13-68) Water injected into Nisku formation. (Order 28-A-79)
TULE CREEK, SOUTH				
Nisku	1	0	1	160-acre spacing units with permitted well anywhere within a 1,320' square in center of each unit. (Orders 34-64, 6-65) Authority given to dispose of produced water into Dakota. (Order 44-64) Into Judith River formation. (Order 29-67)
TWO FORKS				
Eagle	0	0	1	Statewide.
Judith River	0	0	1	
TWO WATERS				
Bakken	2	0	0	Statewide.
Red River	1	0	0	

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
UTOPIA				
Bow Island	0	4	0	640-acre spacing units for Bow Island and Sawtooth; well location may be anywhere within the unit but no closer than 990' to any governmental section line. (Order 13-80)
Sawtooth	0	2	0	
Swift	24	0	3	
				40-acre spacing units for Swift formation; location to be in center of quarter-quarter section with no more than 100' topographic tolerance. (Order 9-78) Order 9-78 amended. Spacing units shall consist of 1 well per quarter-quarter section no closer than 330' from the section boundary. (Order 96-81)
VANDALIA				
Carlile	0	8	0	160-acre spacing units; where discrete gas formations (Bowdoin, Greenhorn, and Phillips) exist a well may be drilled to each discrete formation and to be located no closer than 660' to the unit boundaries. (Order 61-82)
Green Horn	0	0	1	
VAUX				
Interlake	2	0	0	Statewide. Single spacing unit with commingling approved for Madison group. (Order 63-83)
Madison	19	0	1	
Red River	5	0	0	Single spacing unit for Mississippian Bakken formation. (Order 30-86) Single 160-acre spacing unit for Mission Canyon formation. (Order 25-87)
Midale	1	0	0	Produced water injected into the Dakota formation. (Order 44-A-79 and 109-A-82)
Bakken	1	0	0	
VOLT				
Madison	1	0	0	160-acre spacing units with permitted well anywhere within a 1,320' square in center of each unit. (Orders 27-64, 6-65, 32-65) Statewide.
Nisku	5	0	0	
				Excess produced water is disposed into Judith River. (Orders 3-65, 37-A-74) SWD approved EPA-87.
WAGON BOX				
Tyler	0	0	2	Statewide.
WAKEA				
Red River-Interlake	3	0	1	Two 320-acre spacing units. (Order 84-83) Field enlarged. (Order 34-84) Wells located no closer than 660' to spacing unit boundaries.
Winnipegosis	2	0	0	
Nisku	2	0	0	
WEED CREEK				
Amsden	2	0	0	Statewide.
WELDON				
Kibbey	0	0	2	80-acre spacing unit; each quarter section divided into two separate units running in either a north-south or east-west direction; well location in center of NE 1/4 and SW 1/4 of quarter section with 200' topographic tolerance. (Order 9-65)
				Excess produced water is disposed into the Dakota, Lakota, Morrison, Charles, and Kibby formations. (Orders 31-65, 47-65, 37-66, 16-67, 51-A-81, 118-A-81, 128-A-81)
WEST BUTTE				
Bow Island	0	1	0	Statewide, except W 1/2 Section 16 is considered a single spacing unit. Sawtooth-Madison gas commingled, unitized. (Order 5-72) No well closer than 330' from unit boundary.
Sunburst	4	0	2	
WEST BUTTE SHALLOW GAS				
Bow Island-Dakota	0	2	0	160-acre spacing units; with one well to be permitted to produce from each individual gas producing formation above the top of the Kootenai to the surface within each 160-acre spacing unit. Well locations to be anywhere within the spacing unit but not closer than 990' from the spacing unit boundaries. (Order 39-77)
WHITEWATER, EAST				
Bowdoin-Greenhorn-Phillips	0	13	0	640-acre spacing units with two wells allowed per formation to be located anywhere within the spacing unit but not closer than 990' to spacing unit boundary. (Order 100-83)
WHITLASH				
Bow Island-Dakota-Spike	3	29	8	Gas: 300' from legal subdivision line and 2,400' between wells, 75' topographic tolerance. Oil: 330' from legal subdivision line and 650' between wells; 5-spot location at center of 40-acre tract permitted; 75' topographic tolerance. (Orders 16-54, 27-70) Order 16-54 amended to include S 1/2 of Section 30, T37N, R4E. SW 1/4 of 30 is 1 spacing unit, SE 1/4 is the other. Well location no closer than 990' from spacing unit boundary. (Order 45-81)
Madison	0	1	0	
Swift-Sunburst	62	7	20	

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
WHITLASH, WEST				
Bow Island	0	1	0	Gas: 160-acre spacing units consisting of quarter sections; well location anywhere within a 660' square in center of spacing unit. Oil: 330' from legal subdivision line, 650' between wells in same reservoir on same lease; 5-spot location permitted. (Orders 61-62, 22-65 as amended) Orders 61-62 amended by Order 48-77. Field extension. (Order 18-79)
Swift-Sunburst	5	7	3	
WILD HORSE				
Second White Specks	0	1	0	Statewide.
WILLIAMS				
Bow Island	0	17	2	640-acre spacing unit; well to be located no closer than 990' to exterior boundary for all formations above the Kootenai. (Order 49-79) Amendment enlarging field boundary. (Order 102-79, 11-83)
WILLOW CREEK, NORTH				
Tyler	3	0	2	Statewide. Pilotflood. (Order 19-72)
WILLOW RIDGE				
Bow Island	0	12	4	640-acre spacing units; location to be no closer than 990' to unit boundary for gas production from all formations to the top of the Kootenai. (Order 29-78) 40-acre spacing units with permitted 5 wells; well may be located in the center of each 10 acre quarter- quarter section and one in the center of each 40-acre subdivision with a 75' topographic tolerance allowed. (Order 30-78)
Burwash	4	0	0	
Dakota	0	1	0	
Sunburst	0	1	0	
Swift	0	1	0	
WILLOW RIDGE, SOUTH				
Sunburst	0	2	2	Statewide.
WILLOW RIDGE, WEST				
Bow Island	0	5	0	640-acre spacing units; wells to be located no closer than 990' to unit boundaries. (Order 3-88)
WILLS CREEK, SOUTH				
Silurian-Ordovician	3	0	0	160-acre spacing units. Well location in center of SE 1/4 of each unit with 175' topographic tolerance. (Orders 5-64, 30-66) Waterflood initiated 12-1-73. (Order 23-73)
WINDMILL				
Red River	1	0	0	Statewide.
WINNETT JUNCTION				
Tyler	3	0	1	20-acre spacing units. Units to be designated as W 1/2 and E 1/2 of quarter-quarter section, no closer than 120' to the boundary of a spacing unit. (Order 57-76) Certain lands bound by Order 57-76 vacated by Order 41-77. A waterflood operation commenced October 1, 1977 into Tyler formation. (Order 41-77)
WOLF SPRINGS				
Amsden	5	0	1	80-acre spacing units consisting of N 1/2 and S 1/2 of each quarter section. Well location in center of NW 1/4 and SE 1/4 of each quarter section with 75' topographic tolerance. (Orders 4-56, 9-59) Field area reduction. (Order 92-76)
WOLF SPRINGS, SOUTH				
Amsden	6	0	1	80-acre spacing units comprised of W 1/2 or E 1/2 of quarter section; wells located center of NW 1/4 or SE 1/4 of quarter section with 150' topographic tolerance. (Order 57-84) Field enlargement. (Order 8-85)
WOODROW				
Charles	1	0	0	80-acre spacing units consisting of any two adjacent quarter-quarter sections; well locations in center of NE 1/4 and SW 1/4 of each quarter section with 200' topographic tolerance. (Order 47-62) Produced water injected into Dakota. (Order 48-62)
Siluro-Ordovician	1	0	3	
WRANGLER				
Red River	2	0	0	320-acre spacing units consisting of W 1/2 and E 1/2 of S25 T34N R56E. (Order 44-85)
WRANGLER, NORTH				
Red River	1	0	0	Statewide.

Field, Formation	Oil	Gas	Shut-in	Spacing Regulations, Field Rules, and Remarks
WRIGHT CREEK Muddy	4	0	3	80-acre spacing units consisting of N 1/2 and S 1/2 of quarter section with locations in NW 1/4 and SE 1/4 of each quarter section with 200' tolerance. Field area reduction. (Order 69-76) Excess produced water is disposed of into the Muddy formation. (Order 8-A-77) SWD approved EPA-87.
YATES Ratcliffe	1	0	0	320-acre spacing units; well locations as specified for the Duperow and Red River formations that may be dually completed. (Order 92-81) Single spacing unit for Ratcliffe/Mission Canyon formations. (Order 22-86)



SUMMARY OF PRODUCING OIL FIELDS—1988

UNE NO.	FIELD	PRODUCING FORMATION	COUNTY	YEAR OF DISCOVERY	DPTH	GRAVITY °API	F.V.F.	NET PAY FT.	PORO- SITY (%)	% WATER	RECOVERY FACTOR%		PRODUCTIVE AREA ACRES	OOIP		ULTIMATE RECOVERY					1988 PRODUCTION		CUMULATIVE PRODUCTION 1-89 (M BBLs)	RESERVES (M BBLs)	LINE NO.
											PRIMARY	SECONDARY		(M BBLs)	BBLs/ACRE	PRIMARY (M BBLs)	SECONDARY (M BBLs)	TOTAL (M BBLs)	BBLs/ ACRE	BBLs/ ACRF FT.	BBLs	BOPD			
1. Anvil		Nisku	Roosevelt	1981	10,900	40	1.50	14	17	34	79	—	160	1,300	8,125	1,030	—	1,030	6,438	460	92,690	254	684	346	1.
2. Anvil		Ratcliffe	Roosevelt	1982	8,990	36	1.35	22	11	50	7	—	320	2,225	6,953	160	—	160	500	23	15,055	41	126	34	2.
3. Anvil		Red River	Roosevelt	1978	12,600	47	1.63	26	14	32	13	—	2,560	30,159	11,780	3,860	—	3,860	1,508	58	190,514	522	2,414	1,446	3.
4. Ash Creek		Shannon	Big Horn	1952	4,500	34	1.00	14	22	42	26	5	200	2,772	13,860	730	180	910	4,550	325	5,221	14	826	84	4.
5. Bainville		Siluro/Ord.	Roosevelt	1969	12,402	44	—	—	—	—	—	—	1,920	—	—	—	—	—	—	—	68,023	186	349	834	5.
6. Bainville It		Red River	Roosevelt	1981	12,700	42	1.20	40	10	35	4	—	640	10,758	16,809	430	—	430	672	17	41,603	114	396	34	6.
7. Bainville, North		Ratcliffe	Roosevelt	1980	8,800	30	—	13	14	52	—	—	160	—	—	—	—	—	—	—	9,169	25	69	200	7.
8. Bainville, North		Red River/Interlake	Roosevelt	1979	12,400	43	1.55	40	9	32	3	—	2,240	27,446	12,252	940	—	940	420	11	58,361	160	726	214	8.
9. Bainville, North		Winnipegosis	Roosevelt	1979	11,400	44	1.60	35	7	20	12	—	960	9,123	9,503	1,060	—	1,060	1,104	32	64,153	176	521	539	9.
10. Bainville, West		Red River	Roosevelt	1978	8,500	34	1.50	12	6	45	11	—	960	1,966	2,047	210	—	210	219	18	7,248	20	192	18	10.
11. Bannatyne		Swift	Teton	1927	1,500	27	1.05	39	15	43	2	—	1,000	24,637	24,637	420	—	420	420	11	9,281	25	350	70	11.
12. Bears Den		Swift	Liberty	1924	2,300	39	1.08	20	9	35	22	—	360	3,026	8,405	670	—	670	1,861	93	5,809	16	510	160	12.
13. Bell Creek		Muddy	Powder River	1967	4,400	36	1.11	10	26	23	56	28	8,240	115,297	13,992	64,450	67,650	132,100	16,032	1,603	863,249	2,365	129,515	2,585	13.
14. Beanblossom		Lower Tyler	Garfield	1985	4,562	—	—	—	—	—	—	—	480	—	—	—	—	—	—	—	60,506	166	265	311	14.
15. Benrud		Madison	Roosevelt	1983	7,864	40	—	—	—	—	—	—	160	—	—	—	—	—	—	—	7,587	21	70	47	15.
16. Benrud, East		Nisku	Roosevelt	1962	7,500	46	1.37	22	15	30	36	—	640	8,372	13,081	2,980	—	2,980	4,656	212	35,599	98	2,742	238	16.
17. Benrud, Northeast		Nisku	Roosevelt	1964	7,400	46	1.40	23	16	30	49	—	160	2,284	14,275	1,130	—	1,130	7,063	307	8,334	23	976	154	17.
18. Big Gully		Tyler	Musselshell	1976	3,800	30	1.25	11	16	30	20	—	80	612	7,650	120	—	120	1,500	136	2,675	7	102	18	18.
19. Big Gully, North		Tyler	Musselshell	1977	3,900	—	—	6	—	—	—	—	40	—	—	—	—	—	—	—	1,763	5	26	15	19.
20. Big Muddy Creek		Madison	Roosevelt	1981	8,500	44	—	14	—	—	—	—	480	—	—	—	—	—	—	—	8,237	23	76	82	20.
21. Big Muddy Creek		Red River	Roosevelt	1975	11,900	48	1.72	11	14	36	22	—	1,280	5,690	4,445	1,250	—	1,250	977	89	17,500	48	1,171	79	21.
22. Big Wall		Amsden	Musselshell	1953	2,500	19	1.01	17	16	35	28	—	280	3,802	13,578	1,060	—	1,060	3,786	223	23,210	64	962	98	22.
23. Big Wall		Lower Tyler Unit	Musselshell	1948	3,000	31	1.02	22	17	40	33	1	1,220	20,822	17,067	6,820	230	7,050	5,779	263	41,090	113	6,604	446	23.
24. Big Wall		Upper Tyler Unit	Musselshell	1948	3,000	—	—	—	—	—	—	—	480	—	—	—	—	—	—	—	9,010	25	27	32	24.
25. Black Diamond		Nisku	Wibaux	1981	11,310	27	1.31	4	40	10	18	—	640	5,458	8,528	970	—	970	1,516	379	85,050	233	453	517	25.
26. Blackfoot		Devonian/Madison	Glacier	1957	3,500	30	1.10	15	15	35	13	22	360	3,713	10,313	500	1,100	1,600	4,444	296	34,085	93	1,470	130	26.
27. Bloomfield		Dawson Bay	Dawson	1984	10,500	41	1.38	15	2	25	42	—	320	405	1,265	170	—	170	531	35	16,180	44	125	45	27.
28. Bloomfield		Interlake/Red River	Dawson	1983	10,650	43	1.32	13	4	—	21	—	640	1,956	3,056	420	—	420	656	50	32,149	88	266	154	28.
29. Blue Mountain		Red River	Wibaux	1984	11,949	31	1.25	20	18	15	1	—	320	6,077	18,990	80	—	80	250	13	6,032	17	52	28	29.
30. Border Non Unit		Sunburst	Toole	1929	2,400	31	1.08	22	15	30	14	—	160	2,655	16,593	360	—	360	2,250	102	1,844	5	350	10	30.
31. Border Old Unit		Sunburst	Toole	1929	2,400	31	1.08	22	15	30	12	2	480	7,965	16,593	950	120	1,070	2,229	101	6,755	19	1,051	19	31.
32. Bowes Sawtooth Unit		Sawtooth	Blaine	1949	3,300	19	1.02	32	12	31	14	—	3,760	75,774	20,152	10,540	—	10,540	2,803	88	110,503	303	9,565	975	32.
33. Box Canyon		Red River	Richland	1980	11,800																				

SUMMARY OF PRODUCING OIL FIELDS—1988

LINE NO.	FIELD	PRODUCING FORMATION	COUNTY	YEAR OF DISCOVERY	DEPTH	GRAVITY °API	F.V.F.	NET PAY FT.	PORO-SITY (%)	% WATER	RECOVERY FACTOR%		PRODUCTIVE AREA ACRES	OOIP		ULTIMATE RECOVERY					1988 PRODUCTION		CUMULATIVE PRODUCTION 1-89 (M BBLs)	RESERVES (M BBLs)	LINE NO.
											PRIMARY	SECONDARY		(M BBLs)	BBLs/ACRE	PRIMARY (M BBLs)	SECONDARY (M BBLs)	TOTAL (M BBLs)	BBLs/ ACRE	BBLs/ ACRE FT.	BBLs	BOPD			
73.	Deer Creek	Siluro/Ord.	Dawson	1956	9,400	43	1.20	38	7	30	40	—	480	5,778	12,037	2,330	—	2,330	4,854	128	3,485	10	2,312	18	73.
74.	Delphia	Amsden	Musselshell	1957	6,300	35	1.15	12	7	30	26	—	320	1,269	3,965	330	—	330	1,031	86	2,498	7	326	4	74.
75.	Devils Basin	Amsden/Heath/Tyler	Musselshell	1919	1,200	24	1.02	11	17	22	2	—	560	6,213	11,094	120	—	120	214	19	3,157	9	110	10	75.
76.	Devils Pocket	Heath	Musselshell	1920	2,030	—	—	—	—	—	—	—	320	—	—	—	—	—	—	—	6,093	17	22	37	76.
77.	Diamond Point	Red River	Roosevelt	1976	11,900	47	—	26	—	—	—	—	640	—	—	—	—	—	—	—	52,295	143	698	473	77.
78.	Divide	Madison/Ratcliffe	Sheridan	1979	7,900	33	1.35	25	7	42	17	—	2,240	13,066	5,833	2,240	—	2,240	1,000	40	100,671	276	1,501	739	78.
79.	Divide	Red River	Sheridan	1987	11,398	—	—	—	—	—	—	—	960	—	—	—	—	—	—	—	153,675	421	196	610	79.
80.	Dooley	Ratcliffe	Sheridan	1987	6,451	28	—	—	—	—	—	—	480	—	—	—	—	—	—	—	51,060	140	56	813	80.
81.	Dry Creek	Greybull	Carbon	1981	5,579	—	—	—	—	—	—	—	80	—	—	—	—	—	—	—	2,540	7	30	6	81.
82.	Dutch John Coulee	Sunburst	Toole	1985	2,040	—	—	—	—	—	—	—	200	—	—	—	—	—	—	—	27,616	76	129	52	82.
83.	Dwyer Unit	Charles	Sheridan	1960	8,000	37	1.32	38	11	56	12	21	4,960	53,615	10,809	6,396	24	6,420	1,294	34	43,142	118	6,239	181	83.
84.	Dwyer Non Unit	Ratcliffe	Sheridan	1960	8,000	—	—	—	—	—	—	—	1,440	—	—	—	—	—	—	—	15,783	43	31	101	84.
85.	Dwyer	Nisku	Sheridan	1987	9,120	—	—	—	—	—	—	—	160	—	—	—	—	—	—	—	6,501	18	15	37	85.
86.	Dwyer	Red River	Sheridan	1982	11,552	35	—	—	—	—	—	—	1,600	—	—	—	—	—	—	—	104,321	286	909	730	86.
87.	Eagle	Bakken/Duperow	Richland	1980	10,696	40	—	24	—	—	—	—	320	—	—	—	—	—	—	—	19,812	54	84	113	87.
88.	Eagle	Madison	Richland	1977	8,900	32	1.22	15	9	35	9	—	3,040	16,963	5,579	1,600	—	1,600	526	35	82,440	226	1,219	381	88.
89.	Eagle	Red River	Richland	1982	12,448	38	—	—	—	—	—	—	640	—	—	—	—	—	—	—	24,742	68	276	63	89.
90.	Elk Basin	Frontier	Carbon	1915	1,400	—	—	—	—	—	—	—	480	—	—	—	—	—	—	—	18,967	52	1,729	110	90.
91.	Elk Basin	Madison	Carbon	1942	5,300	28	1.12	224	12	9	2	—	1,080	182,990	169,435	3,860	—	3,860	3,574	16	264,468	725	1,952	1,908	91.
92.	Elk Basin	Tensleep	Carbon	1942	5,000	29	1.16	124	11	10	24	—	1,400	114,941	82,100	27,690	—	27,690	19,779	160	331,051	907	22,517	5,173	92.
93.	Elk Basin, Northwest	Madison/ Tensleep	Carbon	1964	6,000	37	1.15	27	12	22	5	3	2,080	35,461	17,048	1,820	300	2,120	1,019	38	178,845	490	1,513	607	93.
94.	Enid, North	Red River	Richland	1979	11,800	47	1.75	8	7	34	19	—	960	1,573	1,638	300	—	300	313	39	16,843	46	220	80	94.
95.	Fairview	Madison	Richland	1981	9,520	34	1.60	45	4	51	20	—	960	4,106	4,277	820	—	820	854	19	45,356	124	366	454	95.
96.	Fairview Non Unit	Red River	Richland	1965	12,700	47	1.70	35	11	28	23	—	2,880	36,432	12,650	8,220	—	8,220	2,854	82	83,690	229	7,522	698	96.
97.	Fairview Unit, NW	Red River	Richland	1965	12,700	—	—	—	—	—	—	—	1,600	—	—	—	—	—	—	—	69,056	189	225	550	97.
98.	Fairview, East	Red River	Richland	1981	12,800	48	1.50	24	13	32	6	—	640	7,023	10,973	390	—	390	609	25	17,016	47	358	32	98.
99.	Fairview, West	Madison	Richland	1980	9,200	37	—	60	3	—	—	—	320	—	—	—	—	—	—	—	11,229	31	169	37	99.
100.	Fertile Praire	Red River	Fallon	1952	9,300	29	1.20	6	14	27	32	—	640	2,537	3,964	820	—	820	1,281	214	19,322	53	666	154	100.
101.	Fishhook	Red River	Sheridan	1980	11,200	41	1.28	10	10	31	16	—	1,280	5,353	4,182	880	—	880	688	69	34,104	93	840	40	101.
102.	Flat Coulee Non Unit	Swift	Liberty	1933	2,900	37	1.10	18	21	35	15	4	1,320	22,874	17,328	3,410	770	4,180	3,167	176	4,929	14	4,137	43	102.
103.	Flat Coulee Unit	Swift	Liberty	1933	2,900	37	1.10	18	21	35	8	—	640	11,090	17,328	920	—	920	1,438	80	100,121	274	328	592	103.
104.	Flat Lake	Madison/Nisku	Sheridan	1964	6,500	33	1.26	14	15	45	25	—	9,600	68,270	7,111	17,270	—	17,270	1,799	129	283,171	776	14,987	2,283	104.
105.	Flat Lake, East	Madison	Sheridan	1984	6,523	28	—	—	—	—	—	—	160	—	—	—	—	—	—	—	11,193	31			

SUMMARY OF PRODUCING OIL FIELDS—1988

LINE NO.	FIELD	PRODUCING FORMATION	COUNTY	YEAR OF DISCOVERY	DEPTH	GRAVITY °API	F.V.F.	NET PAY FT.	PORO-SITY (%)	% WATER	RECOVERY FACTOR%		PRODUCTIVE AREA ACRES	OOIP		ULTIMATE RECOVERY					1988 PRODUCTION		CUMULATIVE PRODUCTION 1-89 (M BBLs)	RESERVES (M BBLs)	LINE NO.
											PRIMARY	SECONDARY		(M BBLs)	BBLs/ACRE	PRIMARY (M BBLs)	SECONDARY (M BBLs)	TOTAL (M BBLs)	BBLs/ ACRE	BBLs/ ACRE FT.	BBLs	BOPD			
144.	Katy Lake, North	Nesson	Sheridan	1981	7,798	34	1.50	20	12	31	12	—	160	1,370	8,562	170	—	170	1,063	53	7,278	20	49	121	144.
145.	Katy Lake, North	Red River	Sheridan	1979	11,300	46	1.42	19	15	30	26	—	1,920	20,927	10,899	5,540	—	5,540	2,885	152	201,553	552	2,649	2,891	145.
146.	Keg Coulee Non Unit	Tyler/Stensvad	Musselshell	1960	4,650	—	—	—	—	—	—	—	120	—	—	—	—	—	—	—	14,020	38	54	64	146.
147.	Keg Coulee Tyler SU	Tyler	Musselshell	1960	4,600	33	1.00	19	14	32	26	3	1,520	21,330	14,032	5,610	550	6,160	4,053	213	38,725	106	6,015	145	147.
148.	Kelley	Tyler	Musselshell	1966	4,400	33	1.15	50	13	30	14	—	240	7,367	30,695	1,030	—	1,030	4,292	86	16,512	45	996	34	148.
149.	Kevin Nisku Oil, E.	Nisku	Toole	1984	3,000	39	1.10	7	9	30	29	—	480	1,493	3,110	430	—	430	896	128	48,304	132	227	203	149.
150.	Kevin Sunburst	Sunburst/Madison	Toole	1922	1,500	32	1.08	7	20	35	22	3	48,720	318,475	6,536	71,610	7,970	79,580	1,633	233	470,300	1,288	77,038	2,542	150.
151.	Kincheloe Ranch, W.	Tyler	Rosebud	1979	5,500	35	—	—	—	—	—	—	200	—	—	—	—	—	—	—	28,464	78	541	89	151.
152.	Laird Creek Unit	Swift	Liberty	1968	2,800	39	1.13	14	16	50	13	2	480	3,691	7,689	480	130	610	1,271	91	5,121	14	576	34	152.
153.	Lambert	Red River	Richland	1980	12,200	44	—	7	13	40	—	—	1,280	—	—	—	—	—	—	—	17,830	49	371	43	153.
154.	Lamesteer Creek	Red River	Wibaux	1984	10,228	39	1.30	8	11	33	4	—	320	1,126	3,518	50	—	50	156	20	4,219	12	26	24	154.
155.	Landslide Butte	Madison/Sun River	Glacier	1967	4,700	41	—	24	—	—	—	—	520	—	—	—	—	—	—	—	32,167	88	266	89	155.
156.	Little Beaver	Red River Non Unit	Fallon	1957	8,300	—	—	—	—	—	—	—	1,120	—	—	—	—	—	—	—	27,638	76	105	57	156.
157.	Little Beaver Unit	Red River	Fallon	1952	8,300	29	1.29	37	12	35	6	23	4,960	86,087	17,356	5,570	8,850	14,420	2,907	79	360,990	989	9,714	4,706	157.
158.	Little Beaver, East	Red River	Fallon	1954	8,300	30	1.50	24	13	35	42	—	1,600	16,782	10,488	7,000	—	7,000	4,375	182	119,449	327	5,514	1,486	158.
159.	Little Phantom	Sunburst	Toole	1977	2,716	—	—	—	—	—	—	—	40	—	—	—	—	—	—	—	1,649	5	51	9	159.
160.	Little Wall Creek	Tyler/Stensvad	Musselshell	1970	3,700	33	1.10	40	15	33	13	—	1,120	31,754	28,351	4,080	—	4,080	3,643	91	160,458	440	3,675	405	160.
161.	Lodge Grass	Minnelusa	Big Horn	1964	6,520	—	—	—	—	—	—	—	640	—	—	—	—	—	—	—	7,291	20	17	83	161.
162.	Lone Butte	Red River/Madison	Richland	1974	12,400	45	1.70	14	11	30	18	—	960	4,723	4,919	860	—	860	896	64	40,793	112	566	294	162.
163.	Lonetree Creek	Red River	Richland	1970	12,500	47	1.86	19	11	30	25	—	3,200	19,527	6,102	4,850	—	4,850	1,516	80	90,391	248	3,343	1,507	163.
164.	Long Creek	Charles	Roosevelt	1976	6,500	38	—	30	—	20	—	—	160	—	—	—	—	—	—	—	3,030	8	65	30	164.
165.	Long Creek, West	Nisku	Roosevelt	1977	7,700	39	—	24	18	20	—	—	320	—	—	—	—	—	—	—	38,078	104	580	337	165.
166.	Lookout Butte	Siluro/Ord./Madison	Fallon	1961	8,900	33	1.15	15	15	25	27	19	9,280	105,644	11,384	28,080	1,300	29,380	3,166	211	549,937	1,507	23,532	5,848	166.
167.	Lowell	Red River	Sheridan	1979	11,300	35	—	7	8	45	—	—	960	—	—	—	—	—	—	—	12,112	33	41	77	167.
168.	Lustre	Madison	Valley	1982	7,200	33	1.19	27	16	45	4	—	8,000	123,919	15,489	4,650	—	4,650	581	22	406,446	1,114	3,664	986	168.
169.	Lustre, North	Ratcliffe	Valley	1983	6,150	—	—	—	—	—	—	—	960	—	—	—	—	—	—	—	11,367	31	60	9	169.
170.	Lobo	Interlake/Red River	Roosevelt	1986	11,410	—	—	—	—	—	—	—	640	—	—	—	—	—	—	—	35,138	96	171	39	170.
171.	McCabe	Ratcliffe	Roosevelt	1973	8,700	37	1.50	20	13	40	6	—	480	3,873	8,068	230	—	230	479	24	6,182	17	222	8	171.
172.	McCabe, West	Red River	Roosevelt	1984	12,260	—	—	—	—	—	—	—	320	—	—	—	—	—	—	—	5,724	16	31	7	172.
173.	McCoy Creek	Red River	Sheridan	1985	10,370	—	—	—	—	—	—	—	160	—	—	—	—	—	—	—	5,232	14	21	13	173.
174.	Medicine Lake	Siluro/Ord.	Sheridan	1984	11,319	44	1.55	38	9	35	7	—	2,880	32,044	11,126	2,210	—	2,210	767	20	197,752	542	902	1,308	174.
175.	Melstone	Tyler	Musselshell	1948	4,400	34	1.09	25	15	30	33	—	800	14,947	18,683	4,960	—	4,960	6,200	248	135,196	370	3,498	1,462	175.
176.	Midfork	Charles/Nisku	Valley	1985	7,174	—	—	—	—	—	—	—	480	—	—	—	—	—	—	—	29,617	81	117	72	176.
177.	Mineral Bench																								

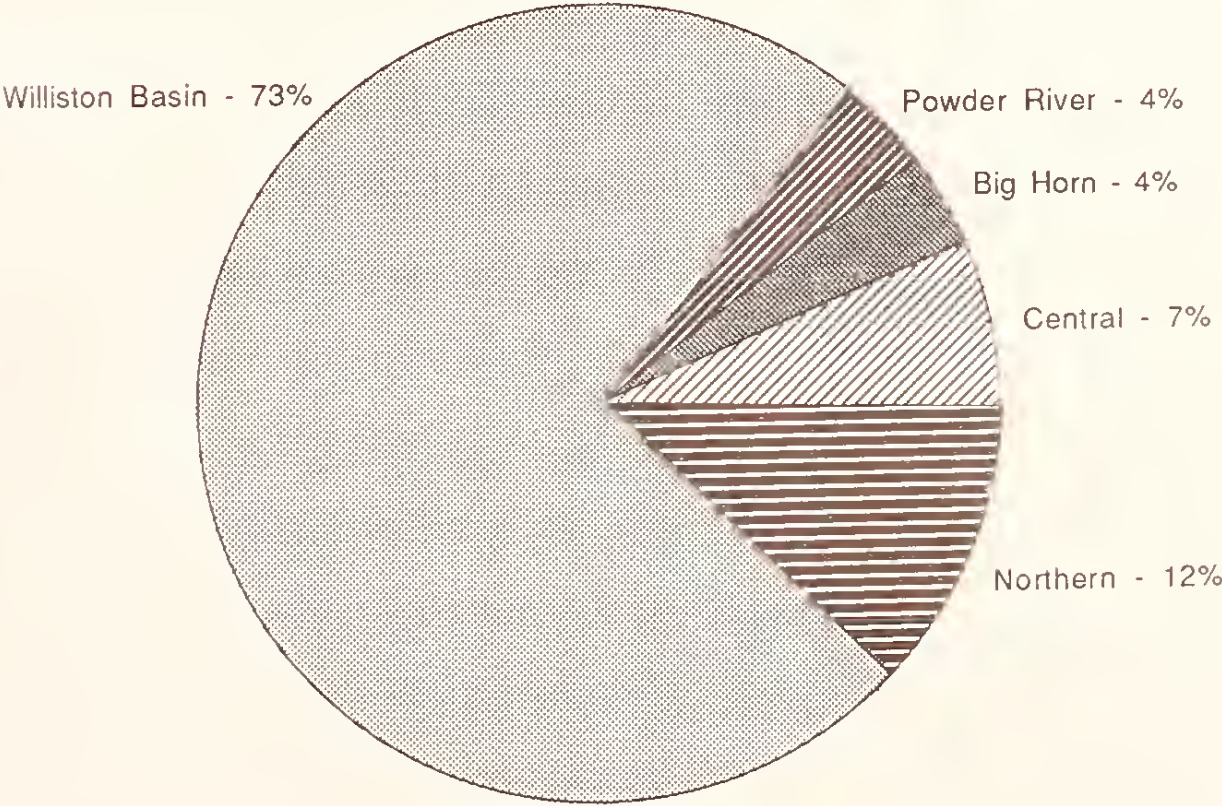
SUMMARY OF PRODUCING OIL FIELDS—1988

LINE NO.	FIELD	PRODUCING FORMATION	COUNTY	YEAR OF DISCOVERY	DEPTH	GRAVITY °API	F.V.F.	NET PAY FT.	PORO-SITY (%)	% WATER	RECOVERY FACTOR%		PRODUCTIVE AREA ACRES	OOIP		ULTIMATE RECOVERY					1988 PRODUCTION		CUMULATIVE PRODUCTION 1-89 (M BBLs)	RESERVES (M BBLs)	LINE NO.
											PRIMARY	SECONDARY		(M BBLs)	BBLs/ACRE	PRIMARY (M BBLs)	SECONDARY (M BBLs)	TOTAL (M BBLs)	BBLs/ ACRE	BBLs/ ACRE FT.	BBLs	BOPD			
216.	Ragged Point	Tyler	Musselshell	1956	3,600	32	1.11	13	14	32	25	10	1,440	12,456	8,650	3,070	1,210	4,280	2,972	229	101,706	279	3,750	530	216.
217.	Rainbow	Red River	Richland	1982	12,500	46	2.20	28	14	45	8	—	320	2,433	7,603	190	—	190	594	21	9,176	25	124	66	217.
218.	Rattler Butte	Tyler	Rosebud	1975	5,300	35	1.10	25	12	60	47	—	240	2,031	8,462	950	—	950	3,958	158	27,726	76	879	71	218.
219.	Rattlesnake Butte	Cat Creek/Amsden	Petroleum	1984	2,732	28	1.10	26	21	70	19	—	240	2,773	11,554	520	—	520	2,167	83	51,042	140	377	143	219.
220.	Raymond	Duperow	Sheridan	1979	8,360	46	—	—	—	—	—	—	160	—	—	—	—	—	—	—	12,970	36	70	92	220.
221.	Raymond	Mississippian	Sheridan	1972	6,800	32	1.09	10	10	—	11	—	1,760	12,527	7,117	1,340	—	1,340	761	76	17,777	49	1,294	46	221.
222.	Raymond	Red River	Sheridan	1972	10,000	39	1.42	33	12	10	7	—	960	18,693	19,471	1,360	—	1,360	1,417	43	31,026	85	857	503	222.
223.	Raymond	Winnipegosis	Sheridan	1972	9,300	42	1.17	40	5	27	28	—	960	9,294	9,681	2,610	—	2,610	2,719	68	65,449	179	1,298	1,312	223.
224.	Raymond	Nisku	Sheridan	1972	7,900	50	1.40	22	9	—	18	—	640	7,022	10,971	1,260	—	1,260	1,969	90	37,068	102	742	518	224.
225.	Reagan	Madison	Glacier	1947	3,700	38	1.10	11	12	30	50	14	2,600	16,943	6,516	8,390	2,300	10,690	4,112	374	165,162	452	8,494	2,196	225.
226.	Red Bank	Madison	Roosevelt	1980	13,000	31	2.00	16	14	11	4	—	5,120	39,594	7,733	1,660	—	1,660	324	20	83,724	229	1,193	467	226.
227.	Red Bank	Red River	Roosevelt	1980	13,000	45	2.00	20	18	8	3	—	960	12,333	12,846	420	—	420	438	22	15,883	44	360	60	227.
228.	Red Bank, South	Red River	Roosevelt	1981	13,000	47	—	20	17	29	—	—	320	—	—	—	—	—	—	—	14,115	39	296	45	228.
229.	Red Creek Unit	Cut Bank/Madison	Glacier	1958	2,600	31	1.08	20	19	30	11	2	1,410	26,942	19,107	2,870	300	3,170	2,248	112	80,653	221	2,825	345	229.
230.	Red Water, East	Red River	Richland	1983	12,025	47	1.40	20	11	40	7	—	320	2,341	7,315	170	—	170	531	27	13,016	36	117	53	230.
231.	Refuge	Red River	Sheridan	1979	11,300	44	1.69	13	5	30	39	—	320	668	2,087	260	—	260	813	63	13,838	38	169	91	231.
232.	Repeat	Red River	Carter	1956	8,600	23	1.02	25	10	30	28	—	160	2,130	13,312	590	—	590	3,688	148	7,416	20	539	51	232.
233.	Reserve	Red River	Sheridan	1966	11,100	39	1.30	18	6	30	24	—	1,600	7,219	4,511	1,750	—	1,750	1,094	61	24,720	68	1,627	123	233.
234.	Reserve	Winnipegosis	Sheridan	1967	10,193	—	—	—	—	—	—	—	160	—	—	—	—	—	—	—	2,825	8	18	17	234.
235.	Reserve II	Red River	Sheridan	1987	11,283	—	—	—	—	—	—	—	640	—	—	—	—	—	—	—	39,760	109	65	36	235.
236.	Richey	Charles	McCone	1951	7,000	39	1.20	25	8	30	16	—	1,440	13,033	9,050	2,030	—	2,030	1,410	56	7,713	21	1,988	42	236.
237.	Ridgelawn	Madison	Richland	1977	8,900	35	1.18	54	3	50	25	—	4,480	23,858	5,325	5,950	—	5,950	1,328	25	328,304	899	2,687	3,263	237.
238.	Ridgelawn	Red River	Richland	1980	12,500	49	1.90	15	12	35	53	—	1,600	7,644	4,777	4,070	—	4,070	2,544	170	256,105	702	2,191	1,879	238.
239.	RipRap Coulee	Ratcliffe	Roosevelt	1975	8,800	34	1.30	14	14	45	14	—	800	5,147	6,433	710	—	710	888	63	36,527	100	494	216	239.
240.	Riverbend	Red River	Richland	1981	12,000	44	1.42	12	12	30	18	—	320	1,762	5,506	320	—	320	1,000	83	18,658	51	188	132	240.
241.	Rocky Point	Red River	Roosevelt	1978	11,800	49	1.80	19	14	47	12	—	640	3,889	6,076	470	—	470	734	39	19,095	52	439	31	241.
242.	Rosebud	Tyler	Musselshell	1974	5,000	34	1.24	32	14	48	17	—	200	2,915	14,575	500	—	500	2,500	78	8,522	23	448	52	242.
243.	Royals	Dawson Bay	Dawson	1980	11,700	43	1.93	46	5	32	18	—	320	2,012	6,287	360	—	360	1,125	24	22,859	63	260	100	243.
244.	Rush Mountain	Red River	Sheridan	1968	12,000	39	1.62	14	10	33	39	—	320	1,437	4,490	560	—	560	1,750	125	13,321	36	556	4	244.
245.	Salt Lake	Madison	Sheridan	1970	7,900	43	1.50	23	11	35	8	—	640	5,443	8,504	430	—	430	672	29	10,080	28	410	20	245.
246.	Salt Lake	Red River	Sheridan	1987	10,554	35	1.30	13	10	25	36	—	480	2,793	5,818	1,000	—	1,000	2,083	160	48,894	134	131	869	246.
247.	Sand Creek	Red River	Dawson	1959	9,000	39	—	25	10	—	—	—													

SUMMARY OF PRODUCING OIL FIELDS—1988

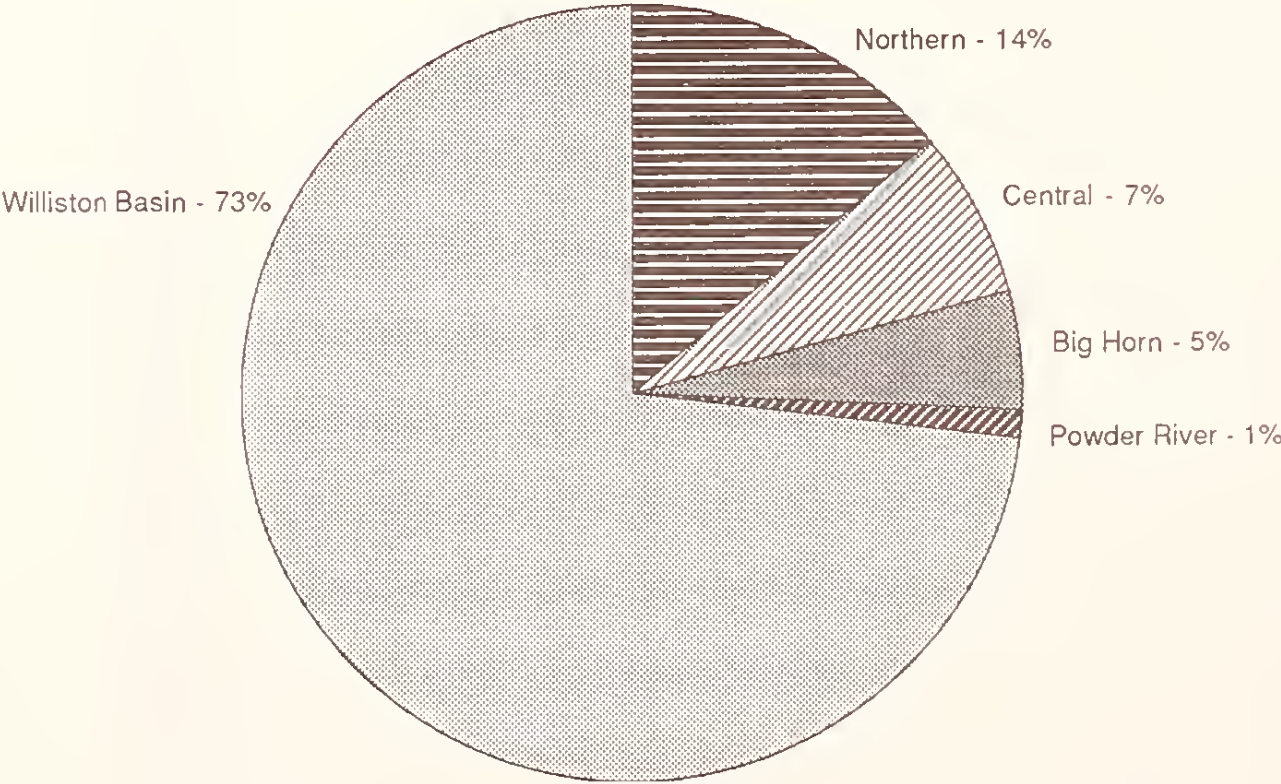
LINE NO.	FIELD	PRODUCING FORMATION	COUNTY	YEAR OF DISCOVERY	DEPTH	GRAVITY °API	F.V.F.	NET PAY FT.	PORO-SITY (%)	% WATER	RECOVERY FACTOR%		PRODUCTIVE AREA ACRES	OOIP		ULTIMATE RECOVERY					1988 PRODUCTION		CUMULATIVE PRODUCTION 1-89 (M BBLs)	RESERVES (M BBLs)	LINE NO.																		
											PRIMARY	SECONDARY		(M BBLs)	BBLs/ACRE	PRIMARY (M BBLs)	SECONDARY (M BBLs)	TOTAL (M BBLs)	BBLs/ ACRE	BBLs/ ACRE FT.	BBLs	BOPD																					
287.	Wakea	Winnipegosis	Sheridan	1985	10,179	44	1.42	12	14	30	41	—	320	2,056	6,425	840	—	840	2,625	219	89,377	245	781	59	287.																		
288.	West Butte	Sunburst	Toole	1968	2,300	40	1.10	10	24	23	15	—	160	2,085	13,031	310	—	310	1,938	194	5,360	15	290	20	288.																		
289.	Whitlash	Swift/Sunburst	Liberty	1927	2,600	38	1.13	15	16	20	14	—	3,120	41,127	13,181	5,780	—	5,780	1,853	124	60,028	164	5,214	566	289.																		
290.	Whitlash, West	Sunburst	Liberty	1980	2,906	—	—	—	—	—	—	—	200	—	—	—	—	—	—	—	6,063	17	114	24	290.																		
291.	Willow Creek, North	Tyler	Musselshell	1970	4,000	32	1.20	12	13	54	58	—	160	742	4,637	430	—	430	2,688	224	22,997	63	346	84	291.																		
292.	Willow Ridge	Sunwash	Toole	1975	1,400	40	1.20	8	16	40	6	—	160	794	4,962	50	—	50	313	39	2,214	6	43	7	292.																		
293.	Wills Creek, South	Red River	Fallon	1964	8,700	33	1.20	12	18	35	28	—	480	4,357	9,077	1,200	—	1,200	2,500	208	20,514	56	1,073	127	293.																		
294.	Windmill	Red River	Richland	1981	12,349	—	—	—	—	—	—	—	320	—	—	—	—	—	—	—	11,489	31	23	31	294.																		
295.	Winnett Junction	Tyler	Musselshell	1973	2,500	28	1.10	12	18	30	11	26	240	2,559	10,662	290	670	960	4,000	333	26,553	73	819	141	295.																		
296.	Wolf Springs	Amsden	Yellowstone	1955	6,200	30	1.07	11	6	23	62	—	2,080	7,664	3,684	4,780	—	4,780	2,298	209	16,292	45	4,672	108	296.																		
297.	Woodrow	Red River/Charles	Dawson	1952	9,600	42	1.30	25	14	35	18	—	560	7,603	13,576	1,340	—	1,340	2,393	96	23,838	65	1,156	184	297.																		
298.	Wrangler	Red River	Sheridan	1979	11,200	30	1.00	6	10	—	30	—	640	2,979	4,654	880	—	880	1,375	229	41,367	113	445	435	298.																		
299.	Wrangler, North	Red River	Sheridan	1979	10,000	41	1.40	18	16	45	5	—	320	2,809	8,778	130	—	130	406	23	5,395	15	105	25	299.																		
300.	Wright Creek	Muddy	Powder River	1969	4,800	35	1.10	5	26	48	17	—	400	1,907	4,767	320	—	320	800	160	6,933	19	282	38	300.																		
301.	Yates	Red River	Wibaux	1982	11,245	33	1.30	21	10	45	2	—	320	2,206	6,893	50	—	50	156	7	5,816	16	34	16	301.																		
302.	Miscellaneous Small Fields																																										
STATE TOTALS																																											

Oil Production by Region
23,317,456 Barrels



Year - 1988

Oil Reserves by Region
188 Million Barrels



Year - 1988

SHOWING PRODUCTIVE FORMATIONS IN MONTANA OIL AND GAS FIELDS *

● OIL ⚙️ GAS

[illegible]

*SOME FIELDS SHOWN ARE DEPLETED OR NO LONGER PRODUCTIVE

MONTANA OIL AND GAS ANNUAL REVIEW

Oil and Gas Conservation Division

Helena — Billings — Shelby